Supplementary Table 1: Guideline values for risk assessment of BaP from various subnational, national and international agencies.

Agency	Category	Value µg/L	Method	Basis for value
WHO (2003)	Health-based guideline	0.7	Oral carcinogenicity in mice using two-stage mutation model. Neal and Rigdon (1967) forestomach tumors	Oral cancer in mice
Cal/EPA (2010)	Public health goal	0.007	Time to tumor model to obtain a lower-bound estimate of dose associated with 10% increased incidence of tumors. Assumed a linear dose–response relationship at low doses. Increased potency factor by 1.7 to correct for early-life exposure. Exposure of 0.052 L/kg bw per day of water (an age-adjusted upper 95th percentile of drinking water consumption for age range for cancer potency correction). q* Cancer potency 1.7 (mg/kg bw per day)−1 [2.9 (mg/kg bw per day)−1 when corrected for early-life exposure]	Incidence of oral cavity or forestomach tumors in female mice (Kroese et al., 2001)
Cal/EPA (2010)	Health protective level	4	LOAEL of 5 mg/kg bw per day from subchronic study. Uncertainty factor of 3000 and RSC of 0.1 and drinking water ingestion of 0.044 L/kg bw per day.	Renal toxicity (Knuckles et al., 2001)
U.S. EPA (1994; 2007) Currently under review	Maximum contaminant level	0.2	Used Neal and Rigdon (1967) and Rabstein (1973); both incidence of mouse forestomach tumors from feeding study	Reproductive difficulties; increased risk of cancer (stomach)
NHMRC (2004)	Health-based guideline	0.01	Based on limit of detection, which is slightly less than value derived using a risk assessment from WHO (2003) using Neal and Rigdon (1967).	Mouse tumors
Health Canada (1988, reaffirmed in 2005)	Health-based guideline	0.01	Increased stomach tumors in Neal and Rigdon (1967) feeding study in mice. Used surface area correction and robust linear extrapolation model to estimate lifetime risk associated with 1 µg/L BaP in drinking water of 5×10^{-5}	Mouse stomach tumors

Supplementary Table 2: All epidemiology studies evaluated.

Study	Case–control/cohort	Exposure route	*N*	Endpoint	BaP concentration	Outcome	Duration of exposure	Association with BaP
Inhalation								
Arif et al. (2006)	Case–control	Cigarette smoking (comparison of human tissues from cancer patients)	50	Highly lipophilic DNA adducts	Unknown	DNA adducts are present, but are not related to PAHs or BaP	Chronic	Negative
Armstrong et al. (1986)	Case–control	Inhalation among aluminum smelter workers	85 cases and 255 referents	Bladder cancer	1 mg/m^3	2.3% increase in bladder cancer	Chronic	Positive
Armstrong et al. (1994)	1) Case–cohort; 2) Subcohort	Inhalation in aluminum production plant	1) 338 2) 1138	Lung cancer mortality	1) cumulative < 10, 10–99, 100–199, 200–299, ≥ 300 µg/m^3-year	1) Smoking-adjusted rate ratio 1.00, 1.48, 2.23, 2.10, 1.87; significance not reported	≥ 1 year between 1950 and 1979	Positive
Armstrong and Thériault (1996)	Cohort	From compensation claims from lung cancer patients exposed to coal tar pitch volatiles (occupational exposure)	Not reported	Lung cancer	1) 100 µg/m^3·years 2) 342.2 µg/m^3 / 190.1 µg/m^3	1) probability of causation over 50%; 2) probability of causation over 50% first achieved and according to the upper 95% confidence limit	Chronic	Positive
Armstrong and Gibbs (2009)	Cohort	Inhalation from aluminum smelters in Quebec	16 431	Lung cancer	100 µg/m^3 BaP·years of employment	Relative risk = 1.35 (95% CI 1.22–1.51)	at least 1 year of employment	Positive
Bartsch et al. (1998)	Case–control	Lung cancer patients vs. controls	N/A	BPDE–DNA adducts (also PAH DNA adduct)	Unknown	CYP1A1 mutation increases BPDE–DNA adducts	chronic	Positive
Burstyn et al. (2005)	Cohort	Inhalation in asphalt workers across Europe	12 367 males	Ischemic heart disease mortality	Highest exposure group was 273+ ng/m^3 and 2013+ ng/m^3 for cumulative exposure	Significant trend with dose and cumulative exposure; 1.64 relative ratio for average exposure and 1.58 in the cumulative exposure	Minimum of one work season	Positive
Cross et al. (2010)	Cohort	Meat and meat component intake as well as meat cooking by-products	Not reported	Esophageal and gastric cancer	Increased risk estimated for each additional 10 ng/d BaP	No relation for BaP; increased cancer risk was observed for meat consumption	Chronic	Negative
De Flora et al. (1993)	Cohort	Smoking	39 for adducts and 31 for MN	BPDE–DNA adducts and micronuclei (MN not specific to BaP)	Not defined	Not significant for MN; however, BPDE DNA adducts were significant according to number of cigarettes smoked per day	Not defined	Positive
De Stefani et al. (2009)	Case–control	Intake of meat and meat mutagens	846 cases and 846 controls	Lung cancer	1) less than 26.9 ng/g; 2) 27.0–42.1 ng/g; 3) 42.2–51.8 ng/g; 4) 51.9+ ng/g	BaP significantly associated with risk of lung cancer. 1) OD = 1.0; 2) OD = 1.10; 3) OD = 1.49; 4) OD = 2.08	Chronic	Positive
Engholm et al. (1996)	Cohort	Residents of Copenhagen in comparison with those living in rural areas	927 470 men and 486 130 women	Lung cancer	Up to 10 ng/m^3	Region had very small effect, and role of BaP is unclear	Chronic	Inconclusive
Friesen et al. (2007)	Cohort	Inhalation at aluminum smelter	6423 males	Bladder and lung cancer incidence, mortality due to myocardial infarction	7.63–122.0 µg/m^3·year	BaP (and benzene-soluble material) were strongly associated with bladder cancer and lung cancer, but modestly associated with myocardial infarction	More than 3 years of work experience	Positive
Friesen et al. (2009)	Cohort	Inhalation at aluminum smelter	4316 male smelter workers	Mortality and cancer incidence	Unknown	Marginal significance of trend for BaP (also inhalable dust and fluoride exposure)	Chronic	Inconclusive
Gu et al. (2008)	Case–control	Smoking	203 cases and 198 controls	BPDE-induced 9p21 aberrations in cultured peripheral blood lymphocytes (bladder cancer)	Not defined	Increased in individuals with cancer relative to control; BPDE 9p21 aberrations significantly associated with bladder cancer (OR = 5.29, 95% CI = 3.26–8.59)	Not defined	Positive
Gustavsson et al. (1995)	Cohort	Inhalation in Swedish graphite electrode plant	901	Mortality and cancer incidence	In the highest exposure group, cumulative exposure was 33 ug BaP/m^3·years, mean exposure time was 10.8 years and average exposure level	No excess risk of death from cancer	Average of 10.8 years	Negative
Haugen et al. (1986)	Cohort	Inhalation in coke oven workers	Not reported	BPDE–DNA adducts in lymphocytes	7.3 µg/m^3 on collected particulate matter	One third of the workers had detectable BPDE–DNA adducts	Chronic	Positive
He et al. (1991)	Case–control	Indoor smoky coal exposure	110 cases and 426 controls	Lung cancer mortality	35.60–248.50 µg/100 m^3	Strong association between BaP exposure and lung cancer mortality	Chronic	Positive
Hemminki et al. (1990)	Cohort	Inhalation in coke workers	91	Aromatic DNA adducts in white blood cells	0.25–90 µg/m^3	Significant in battery workers in comparison with other jobs; significant in nonbattery workers compared with countryside controls	Current job considered.	Positive
Izzotti et al. (1991)	Case-control	Cigarette smoking	39	BPDE–DNA adducts	Unknown	No adducts were detected in samples from nonsmokers or ex-smokers, whereas 84.6% of samples from current smokers exhibited typical fluorescence peaks	Chronic	Positive
Jeng et al. (2011)	Cross-sectional	Inhalation in coke workers	1000	IgA, IgE levels (only endpoint relevant to BaP); other endpoints for all PAHs included malondialdehyde (MDA) and 8-OHdG	Mean concentrations of 1603.06 ng/m^3 in top-oven workers (considered high-exposure group in this study) and 62.47 ng/m^3 in side-oven workers (considered low-	IgA and IgE correlated strongly with BaP exposure; MDA was significantly increased, but not 8-OH-dG	At least 1 year of employment	Positive
Junior et al. (1994)	Cohort	Males working in steel foundries	206	BPDE adducts to hemoglobin	Assessed by personal air sampling devices; precise air concentrations not reported	Air concentrations of BaP not associated with levels	Current job considered	Negative
Knox et al. (2005)	Cohort	Home address relative to hotspots for chemical exposure	22 258 cancer-related deaths before age of 16	Cancer mortality	Not defined	Excess risk of cancer-related death within 0.3 km of hotspots for BaP (and many other chemicals including PM_{10}, benzene and carbon monoxide)	Chronic	Positive
Lavoué et al. (2007); Gibbs and Sevigny (2007a); and Gibbs and Sevigny (2007b) (four-part study)	Cohort	Inhalation in workers from aluminum smelters in Quebec	Part I) 28 910 jobs; Part 2) 5977 workers; Part 3) 9726 workers; Part 4) 5977 workers	All cancer incidence and mortality	0.01–68.08 µg/m^3	Part 1) looked at exposure; Part 2) causes of death before 1951 significant for bladder cancer, COPD, cancers of stomach, digestive system (unspecified), rectum and rectosigmoid, pancreas and larynx, Alzheimer's disease, cerebrovascular disease; Part 3) cause of death after 1951 significant for COPD and respiratory cancer (also esophagus, rectum and rectosigmoid junction, pancreas, larynx, lung, non-Hodgkin's lymphoma, cerebrovascular disease and asthma; Part 4) overall cancer incidence significant lung and bladder cancer (BaP specific); laryngeal and buccal cavity cancer also increased with BaP exposure	Chronic	Positive
Mumford et al., 1993	Cohort	Coal or wood smoke during cooking or heating vs. women using natural gas in Beijing	9 Xuan Wei women with chimney; 9 Xuan Wei women without chimney; 9 Beijing controls	DNA adducts in peripheral blood and cord blood white blood cells and placental tissue	19.25 µg/m^3 for smoky coal and 3.24 µg/m^3 for wood	More DNA adducts were reported in exposed women but significance is not reported.	At home throughout lifetime.	Positive
Mori, 2002	Cohort	Inhalation in graphite electrode factory; exposure to coal tar and coal tar pitch volatiles	332 male employees	Mortality, all causes	Unknown	Increased mortality due to lung cancer (SMR=2.62, compared to 2.35 in general population), lymphatic and haematopoietic cancers (SMR=3.46). Relative contribution of BaP unknown.	More than 5 years.	Inconclusive
Nadon et al. (1995)	Case–control	Cancer patients vs. controls in Montreal area	3730 cancer patients and 533 controls	14 types of cancer (esophagus, stomach, colon, rectum, pancreas, lung (+ oat cell, squamous cell and adenocarcinoma), prostate, bladder, kidney, melanoma of skin and non-Hodgkin's lymphoma	Unknown (only estimated as low, medium and high according to questionnaire)	Increased cancer cases for stomach, pancreas and prostate; increased lung cancer risk observed in nonsmokers and light smokers only	Chronic	Positive

Niu et al. (2011)	Cohort	Inhalation in coke oven workers	176 coke oven workers and 48 warehouse controls.	Emotional and cognitive function; concentrations of monomine and amino acid neurotransmitters; urinary levels of 1-hydroxypyrene for exposure assessment	Mean concentrations of BaP were 19.5, 185.9 and 1623.5 ng/m^3 at the bottom, side and top of the coke even, respectively; concentration for controls was 10.2 ng/m^3	1-OH-Py levels increased; learning and memory decreased; concentrations of norepinephrine decreased; acetylcholine esterase activity decreased; overall, the study shows that exposure to BaP may reduce neurobehavioral function and neurotransmitter levels	Chronic	Positive
Øvrebo et al. (1995)	Cohort	Inhalation in coke workers	13/- for control, 23/17 for low, 26/18 for medium and 18/13 for high exposure workers (January/June)	Anti-BPDE–DNA adducts and hydroxyethylvaline hemoglobin adducts; urinary 1-hydroxypyrene as a measure of exposure	high=top side workers, medium=side workers, low=maintenance workers	Anti-BPDE–DNA adducts did not correlate urinary marker of exposure or cumulative exposure; nonsignificant increase was observed for hydroxyethylvaline–hemoglobin adducts	Chronic	Negative
Pan et al. (1998)	Cohort	Inhalation in coke oven workers (top, middle and bottom workers, and controls)	25 males	Urinary 1-hydroxypyrene, leukocyte aromatic DNA adducts, serum p53, glutathione *S*-transferase M1 (all for PAHs)	Mean BaP level for each worksite of 3.16 µg/m^3 (top), 3.02 µg/m^3 (push side), 0.98 µg/m^3 (coke side), 0.10 µg/m^3 (bottom) and 0.01 µg/m^3 (control); BaP exposure information also available for	Serum p53 correlated with cumulative BaP exposure; no correlation was found for DNA adducts and PAH exposure	Chronic	Positive
Pastorelli et al. (1996)	Cohort	Inhalation of BaP from traffic exhaust	53	BaP diol epoxide adducts with hemoglobin	Estimate of 1-3 ng/m^3 in high-traffic areas	Significant difference observed for high-traffic exposure in nonsmokers	Chronic	Positive
Perera et al. (1982)	Case–control	Lung cancer patients (normal tissue, tumor tissue and blood samples)	15	DNA adducts	Unknown	Inconclusive due to small sample size	Unknown	Inconclusive
Perera et al. (1988)	Cohort	Inhalation in Finnish foundry workers	35 + 10 controls	DNA adducts in white blood cells	Low (< 0.05 µg/m^3); medium (0.05–0.2 µg/m^3); high (> 0.2	Significant for each exposure group	Current job considered	Positive
Perera et al. (1993)	Cohort	Inhalation in Finnish foundry workers	48	HPRT and GPA mutation; DNA adducts	< 5–60 µg/m^3	Not significant for any endpoint	Current job considered	Negative
Phillips et al. (1988)	Cohort	Inhalation in Finnish iron foundry	41	Aromatic DNA adducts in white blood cells	> 0.2 (high), 0.05–0.2 (medium) and < 0.05 (low)	Adducts present in 3/4 (high), 8/10 (medium), 4/18 (low) and 1/9 (controls)	Current job considered	Positive
Rojas et al. (1995)	Cohort	Inhalation in coke workers (smoking, nonsmoking and controls)	39 exposed, 39 controls	Anti-BPDE–DNA adducts in lymphocytes/monocytes	Ranging from ≤ 0.15 to ≥ 4 µg/m^3 in year of collection	~8 times higher in occupationally exposed individuals	At least 4–6 months prior to blood collection	Positive
Santella et al. (1993)	Cohort	Inhalation in workers near or in a Finnish iron foundry	48	PAH–DNA adducts in white blood cells	2–60 ng/m^3	Not significant	Chronic	Negative
Szczeklik et al. (1994)	Cohort	Inhalation in Polish iron workers	274 (199 coke oven workers and 76 cold-rolling mill workers	Humoral immunity (IgG, IgA, IgM and IgE concentrations in blood)	0.2–50 µg/m^3 in coke plant workers was 3–5 times magnitude than in cold-rolling mill employees	Decreased IgG and IgA in coke oven workers indicating immunosuppression with BaP exposure	Average of 15 years	Positive
Tas et al. (1994)	Cohort	Inhalation in two steel foundries and one graphite electrode producing plant	260 (133 controls and 127 exposed)	BPDE adducts on albumin	Not clearly defined	Significantly higher in workers relative to controls; significantly associated with air BaP levels	Current job considered	Positive
Winker et al. (1996)	Cohort	Inhalation exposure in coke oven workers (one newer/clean facility and another with high levels of PAHs)	24	Immunotoxic effects from blood samples	New facility = 651 ng/m^3 air; old facility = 5396 ng/m^3	Reduced mitogenic response of T cells to phytohemagglutinin; impairment of B cell activity; reduced oxidative burst in monocytes after stimulation with *E. coli*; no effects on lymphocytic subpopulations and immunoglobulin levels in serum	6–30 years	Positive and Negative
Xu et al. (1996)	Nested case–control	Inhalation in Chinese iron steel complex	610 lung cancer cases, 292 stomach cancer cases and 959 controls	Lung cancer and stomach cancer cases	< 0.84, 0.85–1.96, 1.97–3.2, ≥ 3.2 µg/m^3	Odds ratio of 0.9, 1.7, 1.3, 1.7 for each dose category, respectively; significant trend	More than 15 years	Positive
Ingestion								
Anderson et al. (2005)	Case–control	Meat intake and preparation method	193 cases and 674 controls	Pancreatic cancer	Median 0.3–53.7 ng/day	OR = 2.2 (1.2–4.0)	Chronic	Positive
Butler et al. (2003)	Case–control	Meat intake and preparation method	701 African Americans and 957 Caucasians	Colon cancer	Mean BaP levels of 22.5 and 16.7 ng/day for African American cases and controls; 41.9 and 35.4 ng/day for white cases and controls	Significant association observed in African Americans only	Chronic	Positive
Cross et al. (2005)	Case–control	Meat intake	29 361	Prostate cancer	≥ 1031.5 ng/day	No association between prostate cancer and BaP intake	Chronic	Negative
Cross et al. (2006)	Case–control	Meat intake and preparation method	383 controls and 458 cases	Non-Hodgkin's lymphoma	Mean intake of 37.1 ng/day and median intake of 16.8 ng/dat	No increased risk	Chronic	Negative
Ferrucci et al. (2012)	Case–control	Meat consumption	17 072	Distal colon and rectal adenoma	Unknown	Not associated with colon adenoma but significantly associated with rectal adenoma (OR = 1.53)	Chronic	Positive
Fu et al. (2011)	Case–control	Meat and meat-derived mutagen intake	2386 cases and 1703 controls	Breast cancer	Unknown	Intake of red meat may be associated with breast cancer; however, this correlation does not exist for BaP	Chronic	Negative
Gunter et al. (2005)	Case–control	Meat intake and preparation method	628 cases and 689 controls	Colorectal adenoma	> 0.29–515.2 ng/day	6% increase of large adenoma per 10 ng/day consumption of BaP	Monitored over the last year	Positive
Hakami et al. (2008)	Case–control	Intake through diet (staple foods including bread and rice) and water in northern Iran	40 cases, 40 controls from the same area and 40 from a low-risk region	Esophageal cancer	For bread + rice + water (data also presented for each food item separately), total daily intake was 99.0, 91.4 and 70.6 ng/day for cases, controls of the same region and low-risk region, respectively	BaP was significantly higher in in cases and controls of the high-risk area, in comparison with the low-risk area; BaP may be associated with esophageal cancer	Chronic	Inconclusive
Lam et al. (2009)	Case–control	Meat intake	2120 controls and 2101 cases	Lung cancer	Not well defined	Significant association for BaP, heterocyclic amines and red meat consumption	Chronic	Positive
Li et al. (2007)	Case–control	Meat intake and preparation method	626 cases and 530 controls	Pancreatic cancer	Mean of 69.9 in cases and 61.2 in controls. Median of 42.3 in cases and 37.3 in controls. These differences were not significant.	BaP was a significant predictor of pancreatic cancer	Chronic	Positive
Sinha et al. (2005a)	Case–control	BaP intake from meat and other foods	146 cases and 228 controls	Colorectal adenoma	Median 5 ng/day from meat and 73 ng/day from food in controls; median 17 ng/day from meat and 76 ng/day from other foods in cases	Trend is significant for both meat and food sources; ORs from meat were 1.19, 1.71, 2.16 and 2.82 and from food were 2.61, 4.21, 2.45 and 5.60 for the second, third, fourth and fifth quintiles, respectively	Chronic	Positive
Sinha et al. (2005b)	Case–control	BaP intake from meat and processed meats	3696 cases and 34 817 controls	Colorectal adenoma (left-sided descending sigmoid colon and rectum)	0.8–168.1 ng/day	BaP intake associated with marginal elevation of colorectal adenoma risk	Chronic	Positive
Dermal exposure								
Scheepers et al. (2009)	Cohort	Nurses who apply ointments containing coal tar	35 nurses	Traces of BaP on hands with and without gloves and 1-hydroxypyrene urinary biomarker	33.0 and 16.4 ng/cm^2 on hands	Use of gloves decreased absorption of BaP by 51.5%. Use of suggested protocol reduces absorption of BaP by more than 57%.	Chronic	Positive
Human cells								
Rojas et al. (2004)		Smoking	22 normal bronchial epithelial cells compared with lung parenchyma in smokers and nonsmokers with lung cancer	BaP BPDE-N2-dG (adducts)	Unknown	Adducts were significantly more elevated in smokers and in bronchial epithelium in comparison with parenchyma		Positive

Supplementary Table 3: All rodent and *in vitro* studies evaluated

Reference	Health effect category (reproductive toxicity, developmental toxicity, carcinogenicity, mutagenicity, etc.)	Exposure (acute < 1 month, subchronic 1–3 months, chronic > 3 months)	Route of exposure (Inhalation, oral, intraperitoneal)	Test material (vehicle, control group, doses, test limit, duration of exposure, dose selection rationale [range-finding study], purity, stability)	Test animals (species, strain, sex, number, age, acclimation, weight, environmental conditions, diet, water)	Clinical observations, necropsy, histopathology, KEY ENDPOINT	Key events (known or speculated)	Findings (MOAs, LD_{50}, NOAEL/LOAEL, *p*-value, relative toxicity compounds)	Quality of study (strengths and weaknesses; use appropriate statistics?)	Notes
Aboutabl et al. (2009)	Cardiovascular toxicity	Acute	i.p. injection	20 mg BaP/kg bw/day for 7 days vs. corn oil control	SD rats n=6 adults	inc. heart rate, bw, cardiac hypertrophic markers, atrial natriuretic peptide, brain neuropeptide. Inc. gene expression of cyps 1a1,1b1,2e1,4f4. inc. DHETs,EETS, 20-HETE, total EETs	MOA AHRnecessity test with inhibitors	only 1 dose tested	weak. Weakness in	sigle dose MOA
Aboutabl et al. (2011)	Cardiovascular toxicity	Acute	i.p. injection	20 mg BaP/kg bw/day for 7 days vs. corn oil control. With & without soluble hydrolase enzyme inhibitor (14,15 DHET:14,15-EET)	SD rat n=4 adults	inc. heart rate, bw, cardiac hypertrophic markers, atrial natriuretic peptide, brain neuropeptide. Inc. gene expression of cyps 1a1,1b1,2e1,4f4. inc. DHETs,EETS, 20-HETE, total EETs(effects blocked by inhibitor)	MOA: continued role of she& Cyp450sin	only 1 dose tested	weak	sigle dose MOA
Carlson and White (1983)	Cardiovascular toxicity	Acute	i.p. injection	40 mg BaP/kg bw in corn oil ?2 & 48 hours prior to phenobarbitol, trichloroethylene or halothane exposure	male new zealand rabbits BaP n=7, control n= 20	BaP weak direct effect to increase number of arrhythmias. BaP some how facilitates sensitization of myocardium to epinephrine by trichloroethylene to cause arrythmias	no	No	many weaknessesnot	N
Gentner and Weber (2011)	Cardiovascular toxicity	Acute	Intranasal	14 days before dosing, surgery to implant BP device and medicated with midazolam, buprenorphine and isoflurane. Anesthetized with isoflurane.	male SD rats n=6/group	altered circadian pattern of blood pressure. Increased neutrophil recruitment in lungs. No effect on CV tissue histology, arterial stiffness, oxidative stress or lund/liver cyp1a1 activity	no	no	poor study, lack details fo	not a good key study
Karyala et al. (2004)	Cardiovascular toxicity	Acute	*In vitro*	10 µm BaP to ~125–150 mg/kg bw in intact mouse. Vehicle = DMSO for 24 hours	Thoracic vascular SMCs from congenic AHR+/+ &	Identified TGFB2 & IGF-1 as potential candidates for an AHR alternative pathway for cells to respond to BaP	postulated	no	mechanistic and exploratory	not a good key study
Matsunawa et al. (2009)	Cardiovascular toxicity	Acute	*In vitro* & intranasal	1 µm BaP for 48 hours	Human monocyte/macrophage-	non stated. More mechanistic study	BaP binds AHR to alter vitamin D3 catabolism by	no	mechanistic and exploratory	not a good key study
N'Diaye et al. (2006)	Cardiovascular toxicity	Acute	*In vitro* & intranasal	*In vitro??* Intranasal installation of 500 µg BaP in tricaprylin vehicle under anesthesia for 24 hours.	Human primary macrophages. Male adult	CCL1 (chemokine involved in in CV diseases and inflammatory response) altered in vivo lung & in vitro by AHD mechanism. Increased early and transient intracellular calcium in vitro	postulated	no	mechanistic and exploratory	mechanistic not useful as
N'Diaye et al. (2009)	Cardiovascular toxicity	Acute	*In vitro*	1µm BaP for 1 hour	Human primary macrophages.	mechanism of CCL1 induction via AHR vs lipoprotein A	postulated	no	study details not clear	mechanistic not useful as
Owens et al. (2008)	Cardiovascular toxicity	Acute	*In vitro*	AhR activation with B-NF (1 µm) for 16 hours then BaP for 24 hours	n = 3 Primary umbilical cells (HuVEC)	Pro-inflammatory MOA involving ICAM-1, Caveolae leading to increased vascular endothelial adhesiveness which may be a critical step In development of BaP induced atherosclerosis. AHR dependent metabolism of BaP	postulated	MOA but not for key study	mechanistic and exploratory	mechanistic not useful as
Oesterling-Owens et al. (2009)	Cardiovascular toxicity	Acute	*In vitro*	AhR activation with B-NF (1 µm) for 16 hours then BaP for 24 hours	n = 3 Primary umbilical cells (HuVEC)	Flavonoids can protect against BaP induced I CAM-1 mechanism described in Oesterling et al 2008	postulated	MOA but not for key study	mechanistic and exploratory	mechanistic not useful as
Podechard et al. (2009)	Cardiovascular toxicity	Acute	*In vitro* & intranasal	*In vitro*: 1 µm BaP 24 hours. Vehicle ?? *In vivo*: 500 µg BaP 24 or 72 hours n = 3?	Primary human macrophages & C57/Bl6	BaP represses NPC1 expression via AHR in macrophages which may contribute to macrophage lipid accumulation involved in CV disease.	postulated	MOA but not for key study	poor reporting of study details	mechanistic not useful as
Sanyal and Li (2007)	Cardiovascular toxicity	Acute	i.p. injection	50, 100, 200 mg BaP/kg bw or corn oil vehicle PD 10, 12, 14 evaluated on PD 20	3–20 dams/group. 60-day-old SD rats	no effect on maternal or fetal survival rates. Decreased maternal BW, placental toxicity, fetal rupture and hemorrhage of blood vessels in skin, cranial and brain tissues.	no	hemorrhage seen even at lowest dose but no stats	no dose response	LOAEL 50 mg/kg
Sauzeau et al. (2011)	Cardiovascular toxicity	Acute	i.p. inhection	BaP 10 mg/kg bw for 24 hours.	4-month old Ahr and Vav3 knock-out mice. N=5-7	Constitutive AhR regulation of Vav3 proto-oncogene to control cardiovascular & respiratory functions does not require AhR activation by BaP	postulated	no	no dose response	
Kerley-Hamilton et al. (2012)	Cardiovascular toxicity	Chronic	Gavage & in food	Gavage:10 mg/kg bw/day (5 days/week) for 10 weeks n = 5. Food: BaP *ad libitum* in oil-soaked chow (BaP 800 mL/mL corn oil) estimated dose 10	B6 strain (high affinity AHR) & B6-D2 strain 9low	B6 strain:altered growth rates of body and several organs and induced atherosclerosis and to a greater extent than in B6-D2. BaP had big impact on gene expression of the aorta (immune responses, muscle-specific genes) which support a MOA of inflammation leading to muscle	postulated	no	no dose response	not sufficient to be key
Penn and Snyder (1988)	Cardiovascular toxicity	Subchronic	i.m. (pectoral injection)	Weekly injection from 4 weeks old to 20 weeks old of 40 mg BaP/kg bw or DMSO, n = 6	male white leghorn chickens	Arteriosclerotic plaques in abdominal aortas of all chickens	no	no	not sufficient to be key study	not sufficient to be key
Sorensen et al. (2003)	Cardiovascular toxicity	Hypothetical MOA linking PAH with biological effects. Help with MOA but not useful as key study for BaP assessment								
Knaapen et al. (2007)	Cardiovascular toxicity	Acute	Gavage	5 mg/kg bw or tricaprylin vehicle, 2 treatments 1 week apart	APOE-/- male mice 17 weeks old n=5	increased mild level of atherosclerosis. MOA : vascular pro-inflammatory effects of BaP by AHR-mediated induction of MCP-1 proposed to lead to increased athergenesis	postulated	MOA but not for key study	not sufficient to be key study	not sufficient to be key
Godschalk et al. (2003)	Cardiovascular toxicity	Acute	Gavage	High fat/high cholesterol diet for 25 days. Single oral dose of 5 mg BaP/kg bw or tricaprylin vehicle	n=5/tretmetn/diet. Male APOE-/- mice	After 4 days: increased BPDE-Dna adductsin aorta. Decreased LDL & increased HDL. Direct and lipidperoxidation-induced DNA damage by BaP in aorta.	postulated		poor	not sufficient to be key
Penn (1990)	Cardiovascular toxicity	Review paper with MOA, dose range in chicken and mice 0.1–40 mg/kg bw								
Ferguson (2009)	Cardiovascular toxicity	Review paper with proposed MOA: mutation of SMC genes relevant to CVD leads to recruitment of macrophages, buildup of foam cells, fatty deposits in vessel wall and then to atherosclerosis								
Yang et al. (2009)	Cardiovascular toxicity	Chronic	Gavage	Olive oil vehicle, 2.5 mg BaP/kg bw/week for 24 weeks	male C57Bl/6 mice: APE-/-, APOE-/-overexpress SOD	Increase mean lesion size in aortic tree and root 60% & 40% and increased oxidized lipids. BaP didn't alter lipid peroxidation or atherosclerotic lesions in aortas of any of the APOE-/- plus overexpression. Implicate role of ROS in BaP- inducedatherosclerosis				
Curfs et al. (2005)	Cardiovascular toxicity	Chronic	Gavage	5 mg/kg bw or tricaprylin contol 1 time/week for 24 weeks	Male APOE-/- 5 weeks old. BaP n=30 control N= 20	increased plaque size but location and number unaffected. No oxidative DNA damage or apoptosis in plaques. Plasma lipoprotein unchanged. Increased greater than 2-fold T-lympocytes in plaques and increase TGFB local response	BaP caused progression of atherosclerosisirrespective	no	mechanistic and exploratory	mechanistic not useful as
Curfs et al. (2004)	Cardiovascular toxicity	Subchronic	Oral	5 mg/kg bw or tricaprylin contol 1 time/week for 12 weeks (n = 31) or 24 weeks (n = 19)	Male APOE-/- 5 weeks old.	Adducts formed. BaP didn't iniate atherosclerotic plaques but accelerates the progression via a local inflammatory response	postulated	no	mechanistic and exploratory	mechanistic not useful as
Ramos and Moorthy (2005)	Cardiovascular toxicity	Review provides MOA information but no dose–response data								
Nakamura et al. (2012) Toxicological	Developmental/reproductive -	Acute	Oral gavage	BaP: 0, 2, 10 mg/kg bw (dose selection based on previous study in CD-1 mice) GD 7–16 (10 days)	Male Gclm -/- Mice (Glutamate Cysteine Ligase	vacuolated seminiferous tubules at 10 weeks of age. Gclm -/- mice had more propounced effects than their Gclm +/+ littermates. Increased		Data demonstrate an important role of	Experiment 1 and experiment	Findings relevant to
Wu et al. (2003)	Development	Acute	Nose-only exposure.	BaP (97% pure) purchased from Sigma Chemical Co. (St. Louis, MO). GD 11–21.	Timed pregnant F-344 rats were exposed to three	Birth index (related to # of birth), BaP metabolite disposition (plasma, cortex), relative % of BaP metabolites in plasma and cortex over time,	Prenatal BaP exposure --> AhR and Cyp1a increased	Lower birth index at 75 and 100 ug compared to	11 is unclear how much	Lengthy explanation
Mackenzie and Angevine (1981)	Development	Acute	Oral gavage	BaP from Aldrich; in 0.2 mL corn oil. GD 7–16.	CD-1 female mice; doses: 0, 10, 40, 160	% pregnant, % viable offsprings, mean litter size, reproductinve capacity of these animals (treated in utero) later in life.	unknown.	Lower % viable litter at birth; lowered pup weight		Table 1 good for BMD
Shum et al. (1979)	Development	Acute	i.p. injection	BaP from Sigma; dissolved in corn oil. GD 7 or 10.	"AhR responsive" strain C57BL/6 (responsive to	Developmental abnormalities were studied (% stillborn, resorptions, malformations, etc.).	AhR.	More abnormalities in C57BL/6 (AhR-responsive		Can't do BMD on the
Ball (1970)	Immune	Acute	subcutaneous injection	Acute (one time) subcutaneous injection of BaP (60 and 120 µg) right after birth induced thymic lymphoma formation (56% incidence vs. 1.5% in controls for 120 µg) while no immunosuppression was observed (hemolysin response of sheep erythrocytes), unlike DMBA (100% thymic lymphoma, about 50% immunosuppression).						
Daynes et al. (1979)	Immune	n.a.	n.a.	This paper looked at cotreatments of BaP and immunosuppressive agents, but not at the immunosuppressive properties of BaP.						
Urso and Gengozian (1980)	Immune	Acute	i.p. injection	i.p. injection of BaP (100 and 150 mg/kg bw) at middle (11–13 days) or late (15–18) gestational days led to marked (about 50%) suppression of the anti-sheep erythrocyte plaque-forming response shortly after birth in the progeny and persisted later into life. Tumor frequency was 76 for mid-gestation and 64% for late gestation compared with						
Urso and Gengozian (1982)	Immune	Acute	i.p. injection	Mice were exposed during gestational development, postnatally or as adults (150 mg BaP/kg bw, once). Animals exposed prenatally were more succeptible to immunosuppression & tumor formation compared with those treated postnatally. Supports the idea that immune deficiency (suppression) influences tumor formation.						
Urso and Gengozian (1984)	Immune	Acute	i.p. injection	Pregnant mice received 150 mg BaP/kg bw during GD 11–17 by i.p. injection. Progeny were assayed for humoral and cell-mediated immune response at various intervals after birth. Immature offspring (1–4 weeks) were severely suppressed in their ability to produce antibody-(plaque-) forming cells (PFC) against sheep red blood cells (SRBC						
				These data show that *in utero* exposure to the chemical carcinogen BaP alters development of components needed for establishing competent humoral and cell-mediated functions of the immune apparatus and leads to severe and sustained postnatal suppression of the defense mechanism. The immunodeficiency exhibited, particularly in the T-c						
Busbee et al. (1984)	Immune	sheep lymph was isolated and used		A combination of *in vitro* and *in vivo* experiments on sheep or sheep lymphocytes. Showed that BaP is taken by lipoproteins. "We propose that lipophilic xenobiotic compounds interact with cells of the immune system via lymphatic lipoprotein transport of potentially mutagenic, carcinogenic, or immunosuppressive agents."						
Dean et al. (1983)	Immune	Acute	subcutaneous injection	Adult B6C3F1 mice were exposed to 10 daily subcutaneous injections of BaP in corn oil for 14 days (oil, 50, 200 and 400 mg/kg bw). Exposure of mice to B(a)P resulted in a reduced number of IgM and IgG antibody plaque-forming cells						
White et al. (1984)	Immune	Acute	subcutaneous injection	Female B6C3F mice, subcutaneous injection of 0, 5, 20 or 40 mg BaP/kg bw in corn oil. On day 11, all mice received sheep red blood cells (SRBC, i.p.). On day 15 animals were sacrificed, spleens dissociated into single-cell suspension and were accessed for the number of anti-SRBC antibody-forming cells producing IgM. Plaques were cour						
Wojdani and Alfred (1984)	Immune	Acute	i.p. injection	C57, C3H and DBA mice, 8 weeks old, were dosed with phytohemagglutinin injection to activate splenic lymphocytes and 24, 96 or 216 hours later were treated with BaP (0. 2.5, 10, 50 mg/kg bw BaP single i.p. injection in oil). Isolated, T-cell-enriched mononuclear cell populations were assayed for AhR hydroxylase activity, tpossible.						BMD
Holladay (1994)	Immune	Acute	gavage	*In utero* exposure to BaP (0, 50, 100, 150 mg/kg bw/day on GD 13–17 by gavage), and offspring were examined at GD 18. Thymic atrophy, cellular depletion (e.g. CD4+8+ fetal thymocytes). So, BaP → thymic hypocellularity, inhibits thymomaturation process, fetal liver hypocellularity, including cells with hematopoietic subpopulations. Da						
Urso (2008)	Immune	Acute	i.p. injection	Pregnant dams of C3H/Anf mice received 150 µg/kg bw on the 12th day of pregnancy by i.p. injection. On day 18, dams were killed and fetuses were removed. Livers were removed and processed (adherent [macrophages, B cells and others?] and non-adherent cells [T cells] were collected). Then, splenic responder (R) and stim						Odd experiment,
Allan and Sherr (2010)	Immune	in vitro cells		Peripheral blood mononuclear cells (PBMC) were prepared from individual blood donors, depleted of T cells and stained with FITC-labeled CD2-specific antibody and purified (B cells). Plasma cell generation: B cells were plated in irradiated CD40L-transfected L cells. After 4 days of coculture, B cells were harvested and see						NICE: REVIEW IN
Fischer et al. (2011)	Immune	Subchronic	oral	Wistar rats, 9–13 weeks old, were fed daily with 150 mg/kg bw for 30 days. Bone marrow and spleen cell numbers were reduced in BaP-treated samples (~70% and 45% reduction, respectively). This is just one of the experiments. Also did some *in vitro* (cell culture) experiments.						
Smith (2010)	Immune	Subchronic	subcutaneous injection	Compared several models of delayed hypersensitivity using mouse foot pad swelling as endpoint. Female B6C3F1 mice 8–15 weeks of age were challenged with BaP in corn oil sc (subcutaneously?) for 14 days at 5, 20 and 40 mg/kg bw. Then, three different antigens were used, and BaP-mediated effect was seen in all three c						Not very insigtful, just
Urso (2008)	Immune	Acute	i.p. injection	In this study, C3H mice were injected once with BaP (150 µg/g bw) at day 12 of pregnancy and progeny lymphoid tissues were excised during gestation (day 18; GD 18) or at 1 or 6 weeks postpartum. The isolated lymphoid cells were analyzed by flow cytometry/immunofluorescence or assessed for function. In BaP-exposed fetuses, thymic T						
Davila et al. (1996)	Immune	in vitro human cells		Examined the toxic effects of nine different PAHs on human peripheral blood T cell mitogenesis. Found that BaP was highly immunotoxic. Also showed that α-naphthoflavone (ANF), which functions as both an AhR antagonist and an inhibitor of cytochrome P450 activity, was able to block the suppressive effect of BaP. Mitogenesis = induct						
Allan et al. (2006)	Immune	in vitro human cells		The AhR is a ligand-activated transcription factor that mediates immunosuppression by environmental PAHs. Previous studies demonstrated that activation of mature human B cells upregulates AhR expression, suggesting that human B cells are direct PAH targets. To test this hypothesis and to determine the metabolic requirem						Very nice.
Galván et al. (2006)	Immune	Acute	i.p. injection	Four-week-old C57BL/6J mice were injected intraperitoneally with 50 mg BaP/kg bw. Mice were sacrificed 12, 24 and 48 hours after intraperitoneal injection with oil vehicle, BaP and bone marrow cells were purified. BaP treatment decreased the pro/pre B-lymphocytes and did not affect the immature B-lymphocytes or matured						No BMD data.
Lee and Urso (2007)	Immune	in vitro studies with isolated spleen cells		Spleens of C3H/HeJ (source of responder, R cells) and CBY/D2 (source of stimulator cells, S cells) mice, 11–12 weeks of age were removed and made into cellular suspensions. The effect of BaP on the cellular proliferative response in response to allogenic mixed lymphocyte responpse (MLR) on concanavalin (only R cells are						Nothing for BMD; this is

De Jong (1999)	Immune	Subchronic	oral gavage	Followed OECD 407 study protocol. Used male Riv:Tox Wistar SPF rats, 6 weeks of age, treated with BaP (0, 3, 10, 30, 90 mg/kg bw/day) in soybean by gavage for 35 days (5 days/week, Monday to Friday). Reduced thymic weight was observed starting at 10 mg/kg bw. Thymus, the organ suggested for immunosuppression ex						BEST data for modelling
Silkworth et al. (1995)	Immune	Acute	oral	C57BL/6 (AhR+/+) and B6.D2 (AhR−/−) mice were used to evaluate immunosuppressive potential of PAHs. Immunosuppression was quantified as the number of antibody-producing cells in spleen following sheep erythrocyte immunization. BaP was able to show immunosuppressive effect in AhR+ animals, but concentrations						Very wide dose range,
Rodriguez (1999)	Immune	Acute	i.p. injection	Compared frequency of T cells in the spleen of mice progeny treated with BaP *in utero* (150 mg BaP/kg bw by single i.p. injection in corn oil at day 11 of pregnancy. Found significant reduction in certain T cell types in 1-week-old progeny from BaP-treated C3H/HeB mice.						
Rodriguez (2002)	Immune	Acute	i.p. injection	Similar study design as above. In addition to reduced number of T cells, saw BaP–DNA adducts in maternal, placental and progeny (immature T cells).						
Wolisi et al. (2001)	Immune	Acute	i.p. injection	Thymectomized (without thymus) mice and their progeny were studied (C3HeB mice). Thymus was excised, and mice were mated, then injected with 150 mg BaP/kg bw once by i.p. injection at day 12 of pregnancy.Thymectomy+BaP reduced litter size by 40%.Increased thymic cell-mediated immunity in progeny of BaP + thymectomized m						
Near (1999)	Immune	in vitro human cells		Bone marrow–derived preB cell line was cocultured with bone marrow–derived stromal cell line and with Hepa1c1c7 were treated with BaP. Saw apoptosis and blockage of that by aNF; AhR antagonist; therefore, apoptosis is dependent on AhR activity.						
				The four references below are Ca^{2+}-related.						
Krieger (1994)	Immune	in vitro human cells		BaP produced sustained (4 hours after stimulus) increase in intracellular Ca^{2+} in human T cell line.						
Krieger (1995)	Immune	in vitro human cells		BaP inhibited the activity of all known SERCA-type Ca^{2+} ATPases (thapsigargin-like effect) in human T cell line → altered calcium homeostasis.						
Romero (1997)	Immune	in vitro human cells		aNF, inhibitor of Cyp450 and AhR antagonist, reduced Ca^{2+} elevation seen in human peripheral blood mononuclear cells; 1–10 μM BaP did not affect glutathione (GSH) concentration when exposed to BaP for 6, 48 or 72 hours, but reactive metabolies of BaP (diol epoxide and 4,5-epoxide) produced 20–30% GSH depletion after 6 hours. Con						
Mounho (1997)	Immune	in vitro human cells		BaP produced significant increase in intracellular Ca^{2+} in certain T and B cells in human peripheral blood mononuclear cells. BaP metabolites were more effective than BaP. Conclusion: PAHs may alter Ca^{2+} in B cells, T cells, monocytes and P450 metabolism may play a role in the immunotoxicity.						
Lyte (1986)	Immune	in vitro cells		A dose-dependent increase in lipopolysaccharide-stimulated IL-1 production, concomitant with decreased cell viability, was seen for macrophages treated with BaP. Peritoneal exudate macrophages from 8- to 12-week-old B6C3F1 mice were used. BaP was added to cell culture plates with LPS. Mice were also subcutaneously in						Table 1 is ready for
Ladics 1992a	Immune	in vitro cells		Murine splenic macrophages were incubated with radioactively labeled BaP, and BPDE generation was measured and found to be produced by CytP450-dependent and independent pathways based on the ratio of anti/syn BPDE (450/peroxyl radical pathway).						
Ladics 1992b	Immune	Acute	subcutaneous injection	B6C3Fl female mice received a daily s.c. injection of 0.0 1 mL/g bw for 4 days in the lower back region to yield a daily dose of 200 mg/kg bw (produced equivalent immunosuppression [no. PFC in response to sheep erythrocytes] as 14-day treatment with 40 mg/kg bw/day. BaP metabolites were seen in splenocytes, and the metabolite concen						
Van Grevenynghe et al. (2003)	Immune	in vitro human cells		Peripheral blood mononuclear cells were from blood of human donors. BaP inhibited differentiation of human blood monocytes and formation of adherent macrophagic cells derived from monocytes in response to cytokines without altering cell viability or inducing apoptosis. The use of aNF counteracted inhibitory effects of BaP. Conclusion:						
Holladay (1995)	Immune	Acute	i.p. injection	B6C3F1 mice were treated with 0, 50 or 100 mg/kg bw/day by i.p. injection in corn oil for 5 days. Thymuses and spleens were collected from mice, homogenized. Bone marrow hematopoietic cells were also collected. Thymic cellularity and splenic cellularity (no. of cells) were decreased by BaP treatment. Same in bone marrow. Conclusion:						
Blanton (1986)	Immune	Acute	subcutaneous injection	14-day exposure of C57BL/6 mice (0 and 40 mg/kg bw/day s.c.) were studied. Spleen was then isolated, challenged with sheep erythrocites and no. of PFCs were measured after 5 days. BaP almost entirely suppressed immune response and LPS and PPD-induced no. of PFCs. Culturing spleen cells *in vitro* and subjecting them with BaP induce						
Knuckles et al. (2001)	kidney	subchronic	oral-diet	0, 5 or 100 mg/kg-day BaP for 90 days	male & femail F-344 rats	changes in lover and body weight at highest dose. Hematocrit and hemoglobin levels dec. In both sexes at high dose and in females at 50 mg/kg at 60 but not 90 dys. Dose -dep inc. abnormalities (tubular casts) in male kidney at all doses.		LOAEL 5 mg/kg-day		
Bouayed et al. (2012)	Neuro	Acute (daily for 17 days)	i.p. injection	BaP from Sigma Aldrich (St. Quentin, Fallavier, France) - purity not specified, dissolved in avocado oil: 0.02, 0.2, 2, 20 mg/kg bw	Nine-week-old Swiss albino female mice (OF1).	Behavioural tests (tail suspension test, forced swimmming test); gene expression of brain receptors.	Alterations in serotoninergic and	Antidepressant-like effect (increased mobility		
Chen et al. (2012)	Neuro	Acute (daily for 6 days)	Oral gavage	BaP (purchased from Sigma Chemical Co., St Louis, MO; Lot No.: 090M1400V) stock solution was prepared by mixing the compound with	Neonate Sprague-Dawley pups, both sexes (PND 5-	Behavioral endpoints assessing sensory and motor maturation were examined. Morris water maze and elevated plus maze were used for evaluating the cognitive function and anxiety-like behavior.	Unknown; BaP-induced oxidative stress, alterations	Behavioural effects: altered sensory and motor		
Qiu et al. (2011)	Neuro	Subchronic (each day for 14 weeks)	i.p. injection	Injected intraperitoneally with BaP (dissolved in DMSO and subsequently diluted in vegetable oil, 6.25 mg/kg bw/day) or vehicle	Male Sprague–Dawley rats (4 weeks old); n=8 for each	KEY ENDPOINTS: Performance on water maze test, mRNA expression in hippocampus. Morris water maze (MWM) was used to evaluate behavioral differences between BaP-treated and vehicle-treated groups	BaP --> altered neurotransmitter receptor	BaP affected mRNA expression of	Sufficient number of	Genes affected
Chengzhi (2011)	Neuro	Subchronic	Gavage	BaP of 99% purity (Sigma-Aldrich) was administered in peanut oil, 2 mg/kg bw/day, 90 days	Adult males of Sprague-Dawley rats; n=16 per	Morris water maze performance, hippocampal neurons were observed by transmission electron microscopy (TEM), antibody microarrays.	Lipophilic BaP ---> crosses blood-brain barrier	Water maze tests were performed poorly by BaP-	Only two doses tested;	Sounds like an interesting
Xia et al. (2011)	Neuro	Subchronic (once daily for 13 weeks (90	i.p. injection	BaP stock solution was dissolved in DMSO and subsequently diluted in corn oil. Rats were randomly assigned to one of the following four treatment groups	Male Sprague–Dawley rats (4 weeks old)	Morris water maze test; determination of MDA, NO, SOD, NOS, ACh, AChE and ChAT (see --> for abbreviations.) Endogenus monoamine levels,	BaP --> altered neurotransmitter levels,	B[a]P treatment increased the levels of	Only 8 animals per dose (rather	Only 8 animals per
Sheng (2010)	Neuro	Acute	Oral gavage (to pregnant dames).	On embryonic day (ED) 14–17, Cpflox/lox dams were exposed to BaP (150, 300 and 600 μg/kg bw) by oral gavage. The proper controls for the BaP (in	The WT mouse utilized and characterized in the present	Looked at BaP metabolites, luciferase reporter of MET receptor tyrosine kinase (HEK cells), MET mRNA and protein expression in brain tissue, novelty discrimination test. All of these tests were performed on F1 offsprings of the WT mouse.	MET --> mediates neuronal process growth and synapse	BaP metabolites (the most abundant being 7,8-diol	N=4-5, sometimes 3.	The mice were bearing
Dutta (2010)	Neuro	Acute	i.p. injection	100 μg, 1 mg and 10 mg of BaP were used for 4 consecutive days.	4–5 weeks old BALB/c mice of either sex, chosen	Examined cytokine levels in brain, microglial activation (immunohistochemistry) as well as cultured primary neurons and microglia to look at cell viability, phospho38MAPK protein expression, cytokine levels, NO release and iNOS levels, ROS, SOD-1 and TRX levels.	BaP --> p38MAPK, ROS, Proinflammatory cytokines	See the previous <---; ROS, p38 and SOD/TRX	N = 6 for animals.	Not enough replicates (n).
Bouayed (2009a)	Neuro	Subchronic	"Oral route"	BaP (0.02 and 0.2 mg/kg bw) dissolved in avocado oil (Cauvin, France) and avocado oil (control mice). Doses are per day, for 21 or 28 days. n = 8–9.	We used Swiss albino male mice (OF1), 9weeks old at	On day 21, the effects of B[a]P on the aggressive behaviourwere evaluated by using the resident-intruder test. On day 28, the effects of B[a]P on the copulatory behaviourwere evaluated by using the male sexual behavioural test.	BaP --> central monoaminergic	Latency time before the first attack was decreased		
Bouayed (2009b)	Neuro	Subchronic	Lactational exposure	Nurturing females received a daily oral administration (per os) of BaP or vehicle (2 or 20 mg/kg bw) over a 14-day period (up to day 14 of postnatal	Sexually mature female and male Swiss albino mice	Body weight, righting reflex, turning reflex, duration of forelimb grip, behavioural tests, mRNA levels of expression of 5HT1A, MOR1, ADRA1D and GABAA were examined.	BaP -->>> neurobiological changes (-- mRNA of	Both 2 and 20 mg BaP-treated pups had higher	Statistics looks ok, enough	Seems ok.
McCallister (2008)	Neuro	Acute	Oral gavage (to pregnant dames).	On GD 14–17, timed-pregnant dams were exposed (using our susceptibility-exposure paradigm; (Brown et al., 2007) by oral gavage in a total volume of	Timed-pregnant Long-Evans Hooded dams were	Number of pups, pups' body weight, toxification and detoxification BaP metabolites (7,8-diol and 3-OH BaP, respectively), NR2B (glutamatergic NMDA receptor	BaP in utero--/ NMDA-NR2B --/ normal function	Number of pups per litter and the body weight of	15 control and 15 treated	Very clearly explained
Konstandi et al. (2007)	Neuro	Acute (10 days)	i.p. injection	BaP source not mentioned.	Five animals per group. BaP dissolved in olive oil.	Dopaminergic activities, dopamine levels and turnover were examined.	BaP --> affects expression of genes, involved in	Altered dopaminergic activity in several brain		
Grova et al. (2007) Neurotoxicol	Neuro	Acute (10 days)	i.p. injection	BaP > 97% purity; Sigma.	Mouse, BALB/c ♀, 10 animals per group. 0.02-	Body weight, behavioural performance, NMDA-R1 mRNA expression were analysed.	Link between BaP exposure in adult mice ---> gene	Increased body weight (11 days after the treatment).		
Brown et al. (2007)	Neuro	Acute for 4 days (GD 14–17)	Gestational (oral gavage to mothers)	BaP source not specified.	Timed-pregnant dams were exposed by oral gavage to	BaP and metabolites in liver, hippoc. And cortex. Glutamate subunit receptors N2RA, N2RB and GlutR1 mRNA was measured.	Activation of glut. Receptors required for	BaP and metabolites were found in liver, cotrex and		Interesting mechanisms.
Saunders et al. (2006)	Neuro	Acute (once)	Gavage	BaP 97% purity; from Aldrich Chemical Company, St. Louis, MO. BaP was dissolved in peanut oil.	Seven-week-old male F-344 rats (0, 25, 50, 100 and	Motor activity (incl. total path animal travelled); BaP metabolites, Antiox. Enz. Activities (SOD, CAT, GPx); Lipid peroxidation were measured.	BaP --> CNS --> a) antiox enzymes DOWN; b) Lipid	Motor activity (dist. Travelled) was reduced by	Ok.	The explanations
Wormley (2004b)	Neuro	Acute (GD 11–21), in utero	Nose-only exposure.	BaP carbon black aerosol was used.	Pregnant F-344 dams. 100 ug/m^3 of BaP was applied	Pregnancy outcome (# births), electrophysiological parameters (evoked field potentials in response to entorhinal cortex stimulation; long-term potentiation using tetanus stimulation) ; NMDA receptor subunit1 protein expression were measured.	BaP >>> NMADAR1? (involved in neur. Diff.,	Birth index in BaP-treated dams was only 34%	Ok.	Long-term potentiation
Saunders et al. (2003)	Neuro	Acute	See Saunders 2006 above.							
Tang (2003)	Neuro	in vitro human cells		BaP from Sigma Chemical Co. (St. Louis, MO). BaP was prepared as DMSO stock, 30 mM and used at 0, 0.03, 0.3, 3 and 30 μM final concentration in the	CULTURED CELLS (C6 rat glioma and SY5Y	A.a. incorporation into proteins, total protein, trypan blue dye exclusion, chlorophenol cytotoxicity, AChE activity were assayed.		BaP reduded the incorporation of a.a. into		A.acid incorporatio
Wu et al. (2003)	Neuro	Acute (GD 11–21), in utero	Nose-only exposure.	B(a)P (97% pure) were purchased from Sigma Chemical Co. (St. Louis, MO).	Timed pregnant F344 rats were exposed to three	Birth index (related to # of birth), BaP metabolite disposition (plasma, cortex), relative % of BaP metabolites in plasma and cortex over time, Cyp1a1 and AhR gene and protein expression was examined in developing pups (post-natal days (PND) 0-30, sometimes, 60).	Prenatal BaP exposure --> AhR and Cyp1a increased	Lower birth index at 75 and 100 μg compared to	11 is unclear how much	Lenghty explanation
Saunders (2002)	Neuro	Acute (once)	Oral gavage	97% purity, Sigma Chemical Co., St. Louis, MO) in peanut oil (research grade, Sigma Chemical Co., St. Louis, MO)	Male Fisher-344 rats, weighing approximately	Motor activity, functional observation parameters (Neuromuscular (e.g., grip strength), Sensorimonitor (e.g., click response), Autonomic (defecation, urination) and BaP metabolites (up to 96 hours after administration) were measured.	"BaP produced a variety of behavioral	Up to 70% decreases in locomotor activity (12	N=10.	Not much mechanistic
Saunders (2001)	Neuro	Acute (once)	Oral gavage	BaP (>97% purity) as specified by the supplier was obtained from Sigma Chemical Company (St. Louis, MO).	8-week-old male and female F-344 rats. Rats	Motor activity, stereotypic activity, vertical activity, horizontal activity, total distance, gaiting,	BaP --> (decreased dopamine? Cholinergic	doses ranging from 25 to 200 mg/kg produced a	N = 10, Both sexes were	Very thorough
Hood (2000)	Neuro	Acute (*in utero* and another group - both	Nose-only exposure.	Unspecified source.	Timed-pregnant Sprague Dawley rats were exposed	BaP in blood immediately after exposure and EMSA using nuclear extract from cortex and cerebellum (post-natal days: 3-15) were analysed.	BaP ---> alterations in the timetable of cellular	>95% BaP was found to be cleared from blood	N=6 for bioavailability	This study seems to be
Stephanou et al. (1998)	Neuro	Acute (single dose and twice per week	i.p. injection	BaP from Sigma Chemical Co, unspecified purity.	Female albino Wistar rats. 50 mg/kg BaP in olive oil	Noradrenaline, catecholamine and cat. Metabolites were measured in brain using HPLC	BaP --> dopaminergic and serotoninergic systems	Sitriatum where NA, DA, DOPAC decreased after	N=6.	Very interesting,
Jayasekara et al. (1992)	Neuro	Acute (twice per week, 3 weeks)	i.p. injection	BaP (purity > 98%) was obtained from Sigma Chemical Co. (St. Louis, MO).	Adult male C3H mice received 0, 5, 25,	Certain brain regions were analysed for brain biogenic amines and their selected metabolites, norepinephrine (NE), dopamine (DA), 5-hydroxytryptamine	BaP --> Tyr hydroxylase, Trp hydroxylase activities	BaP treatment increased the steady-state levels of	N = 5 (5 animals per	
Arafa et al. (2009)	Reproductive	Acute	Oral	BaP. 50 mg/kg bw/day; hesperidin (HDN, a citrus flavonoid): 200 mg/kg bw/day; vehicle = olive oil (0.2 mL/100 g/day); exposure = 10 days. Testicular toxicity - Acute (10 days)	Male Swiss albino rats; weight= 150-200g; water and standard rat chow ad	BaP induced testicular toxicity (well characterized histologically and biochemically); decreases relative testis weight, induced pyknosis & necrobiotic changes; induced chromatolysis in the nuclei of spermatocytes; markedly diminished epididymal function (↓ sperm count, motility & daily sperm production); significant changes in several measured testicular enzymes		Conclusion: Exposure to DBP and BaP, in either separate or combined	Acute study focused more on the potential	
Archibong et al. (2008)	Reproductive	Subchronic	Inhalation (nose-only)	BaP: 75 $\mu g/m^3$; Exposure: 4 hours/day for 60 days (one sperm cycle) Dose selection rationale: exposure concentration selected as it adversely affected reproductive outcomes in male and female rats in a previous study by these authors and is within a range present in environmental sources of BaP	Adult Male F-344 rats; age = ~12-13 weeks; weight = ~340-360g; n=10/group; **carbon black used as a carrier for BaP (therefore**	Blood samples were collected on day 60 (time 0), and subsequently at 24, 48 & 72 hr to assess plasma testosterone (T) and luteinizing hormone (LH); ↓ mean testis weight, ↓ total weight/ volume of tubules, ↓ total tubular length per paired testis and ↓ # spermatids in exposed vs control animals; ↓ plasma T & intra-testicular T, ↑ plasma LH, body weight unchanged	Reduced daily sperm production may have been due to reduced spermatogenesis resulting from BaP-induced DNA	Conclusion: data suggest that 60 day exposure to inhaled BaP contribute to reduced testicular endocrine and	Strength: very well written paper with concise explanations	Very well-written paper with useful MOA section in
Bui et al. (1986)	Reproductive	Acute	Subcutaneous	BaP: 50 mg/kg bw in corn oil (2 mL/kg bw); methadone: 5 mg/kg bw in saline (10 mL/kg bw); dose selection of BaP based on previous work in that laboratory; subcutaneous injections given on days 6–8 of gestation or days 6–11 in PSP rats in the pregnant and pseudopregnant (PSP) rat; Acute [three injections for pregnant rats or six injections for PSP rats]	Sexually mature male & female Sprague-Dawley rats; weight = 225-250g	BaP and methadone both affected reproductive performance in pregnant rats (sign. ↑ # resorptions and fetal wastage, ↓ fetal weight, ↓ # live fetuses); in pseudo-pregnant rats, BaP ↓ uterine wet weight & cAMP & cGMP levels, methadone was without effect; no maternal deaths in either group		Conclusion: BaP may exert its effects adversely on both maternal and fetal compartments; whereas methadone may act	Old study, only one dose of BaP used, short sub-cutaneous exposure route	
Chen et al. (2011)	Reproductive	Subchronic	Oral gavage	Subchronically exposed to single doses of dibutyl phthalate (DBP) (250 mg/kg bw), single doses of BaP (5 mg/kg bw; 96% pure) and combined doses of DBP and BaP by gavage for 4, 8 and 12 weeks, respectively (n = 10 per group at each time point). Chemicals were dissolved in corn oil	Male Sprague-Dawley rats; age 28-30 days old; 4 groups and 3 timepoints n=10; control = corn oil; volume =0.5ml/100g BW	Significant adverse effects were noted including: ↓ sperm count, ↑ production of abnormal sperm, changes in serum testosterone (T) & irregular arrangements of the seminiferous epithelium, ↓ activities of superoxide dismutase & glutathione peroxidase. No differences in BW, food consumption, testis weight or epididymal weight. BaP can affect the reproductive system of male rats adversely via oxidative stress-related mechanisms.		Noted LD50 for BaP in discussion (50mg/kg for rats) Conclusion: Findings suggest that oral	Statistics: values expressed as mean ± SD, two-way	Good explanantion of biochemical changes in
Craig et al. (2011)	Reproductive	Review		Among the chemicals covered are pesticides (e.g. dichlorodiphenyltrichloroethane and methoxychlor), plasticizers (e.g. bisphenol A and phthalates), dioxins, polychlorinated biphenyls and PAHs (e.g. BaP).		This review summarizes the effects of EDCs on ovarian function by describing how they interfere with hormone signaling via 2 mechanisms: (1) altering the availability of ovarian hormones (expression and/or activity of enzymes required for synthesis and/or catabolism of ovarian sex steroids); and (2) altering binding and activity of the hormone at the receptor level (alter the expression of hormone receptors and/or their ability to bind their endogenous ligands).	Ovarian steroidogenesis is reviewed in detail	Several PAHs have been described as potent ovotoxicants (e.g. DMBA and BAP) that indirectly may alter levels of	Good review, but does not focus specifically on BaP (or even	

Dent (2007)	Review: Strengths and limitations of using repeat-dose toxicity studies to predict effects on					Could rodent functional effects be predicted in a sub-chronic study? Yes/No (Reference) If yes, nature of effect): For BaP - Yes (Archibong et al., 2003) Testis: reduced weight; sperm analysis: reduced sperm motility and density (no testicular histology quoted). Also raised LH levels. The chromium compounds, some of the cadmium compounds (cadmium fluoride, cadmium chloride, and cadmium sulphate), benzo[a]pyrene, 1,2-dibromo-3-chloropropane, 2-	The testicular effects that were predictive of functional effects could be the result of a number of toxic modes of action, some	Intelligent testing strategies therefore need to be developed which can take into account data from a wide variety of	Review focuses on a panel of test chemicals to determine the strengths	
Kristensen et al. (1995)	Reproductive	Acute	Oral	Four treatment groups (n = 9/group): (1) control; (2) lead (F_0 given 1 g $PbCl_2$/L in drinking water until mating); (3) BaP (10 mg/kg bw daily by oral gavage on days 7–16 of F_0 pregnancy); (4) combined lead and BaP. Dose selection rationale: lead dose was comparable to blood levels seen in occupational	Male and female F0 Female Bom:NMRI Mice were mated. At 9 weeks of age, F0 females were assigned to treatment	F1 groups exposed prenantally to BaP showed markedly reduced fertility with few ovarian follicles and corpora lutea, ↓ ovarian weight; non-significant indication that the compounds in combination ↓ # offspring, # litters, and litter size; results suggest that lead and BaP have synergistic effects on the impairment of fertlity		Conclusion: Prenatal administration of BaP (with or without lead) leads to subfertility and a marked reduction in the #	Authors state that their dose selection for lead and BaP wer probably	
Mackenzie and Angevine (1981)	Reproductive (bit of developmental)	Acute	Oral gavage	BaP (0, 10, 40 or 160 mg/kg-day) by gavage on days 7-16 of gestation. Corn oil vehicle, controls given corn oil. Male breeding study: F1 males was placed with 2 virgin untreated females every 5 days for 25 days, at gestation day 14-19, females were sacrificed and # implants, fetuses and resorptions were recorded.(F2 young were examined for gross abnormalities). Female breeding	Adult male and female CD-1 Mice; each test group n=30 or n=60 treated pregnant dams Male breeding study: F1 males	No maternal toxicity or embryolethality at any dose. Decrease pup weight all doses.160 mg/kg-day of BaP resulted in a reduced percentage of mice that were pregnant, reduced number of viable litters at parturition, and reduced mean pup weight at 20 and 42 days post-parturition. Mean pup weight was also significantly reduced at 20 or 42 days post-parturition in females that received 10 mg/kg-day or greater of BaP. Male offspring of dams treated with 10, 40 or 160 mg/kg-day and then bred with untreated females yielded decreased fertility (10 mg/kg or greater), with almost no pregnant females when the males were exposed to either 40 or 160 mg/kg-day in utero. Similarly, fertility was reduced in female		LOAEL 10 mg/kg/day decreased fertility index in both male and females. Data demonstrate a sensitivity of fetal gonads	Multi-generational study: exposure of F0 pregnant females for 10	
Mukhopadhyay et al. (2010) Fertility and Sterility 94(2): 595-598.	Reproductive	Acute	*In vitro* (BaP was mixed with media)	Semen collected from 13 fertile, normozoospermic, non-smoking men; spermatazoa were washed and treated with BaP: 12.5, 25, 50, 100 µg/mL; Dose range selection was based on previously described studies and sperm survival studies done in their lab.(1 hour exposure)	In vitro study to examine the effects of BaP on sperm hyperactivation and acrosome reaction by computer-assisted semen	A statistically significant ↑ in sperm hyperactivation was observed at concentrations of BaP ≥ 50 µg/mL; Acrosome Halo Test: [BaP] ≥ 25 µg/mL significantly ↓ the percentage of halo formation, indicating an inappropriate (false) acrosome reaction		Conclusion: BaP significantly affected sperm functional competenence in vitro, as evidenced by increased	Acute in vitro study, but results seen were statistically	
Tuttle et al. (2009)	Reproductive	In vivo subchronic (8 weeks)/in vitro acute (24 hours)	Inhalation (nose-only)	in vivo: 2 cigarettes/day, exposed 5 days/week for a total of 8 weeks, including the 2-week lead-up period. In vitro BaP: 1-10000 ng/ml (24 h exposure)	Mice and isolated murine ovaries (in vivo/in vitro); female C57BL/6 mice (6–8 weeks old), n=5	Ovaries were analysed for follicle loss and markers of apoptosis (TUNEL, Caspase 3, Caspase 8, Bax, Bcl-2, Fas and FasL). Cigarette smoke exposure induced a significant ↓ in the number of primordial follicles, but not growing or antral follicles. Mainstream cigarette smoke exposure had no effect on any marker of apoptosis measured. Exposure of ovaries to BaP in vitro resulted in an ↑ in the pro-survival marker Bcl-2, but no change in apoptosis. Significant reductions in the number of follicles in different stages of development in ovaries of mice exposed to cigarette smoke	Data suggest that cigarette smoke-induced follicle loss is not mediated via BaP-induced apoptosis. Findings suggest that a decreased	Physiologically relevant exposure to cigarette smoke does not increase the rates of apoptosis in the ovary, and by	Good study with in vivo and in vitro components to the research	
Nakamura et al. (2012)	Reproductive	Acute	Gavage	Dams were treated by oral gavage with 2 or 10 mg/kg BaP (Sigma-Aldrich Supelco, ≥99.8% purity) in sesame oil daily from GD7 to GD16. Control animals were gavaged with the same volume of sesame oil alone.	C57BL/6J genetic background (B6.129-Gclmtm1Tjk; hereafter referred to as Gclm-/-).	We observed no changes in fertility, testicular weights, testicular sperm head counts, or testicular histology and subtle changes in cauda epididymal sperm counts, motility, and morphology in Gclm-/- compared to Gclm+/+ males. Prenatal exposure to BaP from gestational day 7 to 16 was dose-dependently associated with significantly decreased testicular and epididymal weights, testicular and epididymal sperm counts, and with vacuolated seminiferous tubules at 10 weeks of age. Gclm-/- males exposed prenatally to BaP had greater decreases in testicular weights, testicular sperm head counts, epididymal sperm counts and epididymal sperm motility than Gclm+/+ littermates. These results show no effects				
Neal et al. (2010)	Reproductive	Acute	*In vitro* (BaP in media)	BaP: 0, 0.5, 1.0, 1.5, 5.0 and 50.0 ng/ml, with or without 5 µmol/l resveratrol (n=6) or 5 µmol/l 3,4-DMF (n=7); dose selection based on physiological concentrations previously measured in human follicular fluid. (5 days)	In vitro study using isolated rat follicles; ovaries (n=63) from 22-26 day old female Wistar rats	BaP significantly inhibited follicle growth & cell proliferation at concentrations of 1.5 ng/ml and higher, an effect attenuated by co-incubation with AhR antagonists. BaP caused a significant ↓in oestradiol and anti-Mullerian hormone (AMH) output, an effect attenuated by co-treatment with 1 of the 2 AhR antagonists tested.	MOA - AhR agaonist; mechanisms of BaP induced follicle toxicity remain unknown. Cross-talk between the AhR and	Results suggest that the adverse effects of BaP on follicle growth, steroidogenesis and AMH output are mediated	In vitro model best represents in vivo scenario as concentrations	
Paltanaviciene et al. (2006)	Reproductive	Acute	Oral	Cadmium: 0.1, 0.5, 1.92, 4.0 mg/kg; BaP: 0.00015, 0.0015, 33.3 (? Typo in publication?), 10.0 mg/kg; Pyrene: 0.00075, 0.0075, 20.0, 90.0 mg/kg; Exposure duration: 14, 28 & 90 days; Combined exposures performed; oral administration at 1ml/100g BW/day; Vehicle = rape seed oil; 40 groups, 6 control groups (3 water, 3 oil), n=7-10/group	Male Wistar rats(~320 total); age = 6-7 weeks; weight = 130 ± 40g;	Combined effects included: ↓ # Spermatazoids, ↓ viability, ↓ duration of motility, ↓resistance in NaCl and HCl; relative weights of testicles, seminal vesicles & epididymis (data ambiguous due to combined dosing of 3 different substances)		Combined effects of these substances were often similar to the effect seen by isolated substance; based on tested parameters	Poor quality study: quality of writing was poor (English was not the	Loosley based on OECD test guidelines 407 and 408
Ramesh et al. (2008)	Reproductive	Subchronic	Inhalation (nose-only)	Treatment group = 75 µg BaP/m^3, 4 h daily for 60 days (1 sperm cycle); Control group = unexposed (UNC); Dose selection rationale: exposure concentration selected as it adversely affected reproductive outcomes in male and female rats in a previous study by these authors and is within a range	Adult Male F-344 rats; age = ~12-13 weeks; weight = ~340-360g; n=10/group; **carbon black used as a carrier for BaP; likely a**	Blood samples were collected on day 60 (time 0), and subsequently at 24, 48 & 72 hr to assess plasma testosterone (T) and luteinizing hormone (LH); BaP exposure reduced testis weight and caused significant reductions in the components of the steroidogenic and spermatogenic compartments of the testis. Progressive motility and mean density of stored spermatozoa were reduced. Plasma [T] were decreased by two-thirds in BaP exposed rats, concomitant with increased concentrations of LH in BaP-exposed rats. [BaP metabolites] of toxicological	MOA: AhR and ARNT discussed		These data suggest that sub-chronic exposure to inhaled BaP contribute to reduced testicular and epididymal	Same study as Archibong et al (2008), presented slightly	Well written paper with many relevant references
Sadeu and Foster (2011) Reproductive Toxicology 31: 402-408.	Reproductive	Acute	*In vitro*	BaP: DMSO & 0 ng/ml BaP (controls), 1.5, 5, 15 & 45 ng/ml. Dose Selection is representative of follicluar fluid concentrations in women exposed to mainstream and/or sidestream cigarette smoke. sub-acute (13 days)	Follicles (100–130 m) isolated from ovaries of F1 hybrid (C57BL/6j×CBA/Ca) mice (13 day old mice, n=42)	BaP treatment inhibited ($p < 0.05$) antral follicle development, decreased estradiol output and follicle survival at the 45.0 ng/ml dose. BaP exposure decreased AMH output overall during preantral ($p = 0.014$) and antral ($p = 0.026$) follicle development but had no effect on progesterone output or oocyte growth and nuclear maturation in surviving follicles.		Data suggest that BaP is an important toxic component of cigarette smoke that adversely affects follicular	The advantage and physiologically relevant aspect of the long-	
Swartz and Mattison (1985)	Reproductive	Acute	Single i.p. injection, studied mice at weekly intervals from 1 to 4 weeks post-i.p	BaP: 1, 5, 10, 50, 100 & 500 mg/kg Vehicle = corn oil 1 acute exposure, studied 1, 2, 3 & 4 weeks post-exposure.(designed to study the effect of BaP on ovarian function in intact mice not stimulated with exogenous gonadotropins)	Female C57BL/6N Mice; 6 weeks of age; water and standard mouse chow ad libitum; 1 week acclimatization before	Dose- and time-dependent decrease in # of corpora lutea; General histological appearance of the ovary was assessed, # of corpora lutea counted; morphological variation was observed in treated mice; ovarian toxicity noted in highest dose group (complete absence of folliculogenesis); BaP resulted in a 35% mortality rate at 500 mg/kg;		1 week after treatment: threshold of ~1mg/kg, ED50 of 1.6 mg/kg P<0.05 ED ... of BaP for the	#of corpora lutea present in BP-treated and control mice were analyzed	
Xu et al. (2010)	Reproductive	Subchronic	Oral	BaP: 5 & 10 mg/kg; di-(2-ethylhexyl)phthalate (DEHP): 300 & 600 mg/kg; or combination of BaP & DEHP; control (corn oil). Exposure: alternate days for 60 days; Dose Selection: dietary exposure to BaP and DEHP is likely,as both are found in urban and rural water. Doses used are higher than the levels found in the general environment, but may be relevant in cases where the specific	Female Sprague-Dawley rats; n=6 per group; BW = 80-100g, age = 5 weeks; access to purified water and standard chow	BaP and DEHP exerts ovotoxicity and suppression of sex hormone (17β-estradiol), secretion and homeostasis, which is associated with prolonged estrous cycles, decreases in ovarian follicle populations and granulosa cell apoptosis involving a PPAR-mediated signaling pathway of action of the two chemicals. ↓ovarian weight & ovary weight/BW ratios in treatment groups; ↓P450Arom mRNA & protein expression, ↑PPAR-α mRNA & PPAR-γ mRNA & pretein expression. With ↑ in the dose of BaP + DEHP, there was a dose–response trend of prolonged duration in the EC and No E phases of the estrous cycle.	Granulosa cell apoptosis involving a PPAR-mediated signaling pathway of action of the two chemicals. Some AHs could interfere with	Based on qualitative assessment of the combined toxicity, no interaction effects were observed following combined	Controversial results were observed regarding combined	Good study that looked at mRNA and protein levels.
Zenzes (2000)	Reproductive	review paper	Inhalation (smoking)	BaP in cigarettes: 6–40ng/cigarette; 20 cigarettes in 8 h, could inhale 0.067-0.568 ug of BaP		BaP's reactive metabolite binds covalently to DNA, forming adducts. Smoking-related adducts were detectable in ovarian granulosa-lutein cells, oocytes, spermatazoa & preimplantation embryos. Transmission of altered DNA from smoking by spermatozoa was demonstrated in preimplantation embryos and in association with increased risk of childhood cancer.	Discusses DNA damage with respect to adducts specific to BaP	Excellent review: discusses: (1) vulnerability and repar of germ cells; (2) smoking and clinical reproductive outcomes in	Excellent review, but not specific to BaP (focused on tobacco smoke)	Read this review paper for BaP regulatory purposes
Zenzes et al. (1995)	Reproductive	Chronic	Inhalation (smoking)	Women included in study categorized based on smoking frequency. (meiotic maturation of human oocytes) - chronic	Human oocytes - A total of 156 (54 smokers & 102 nonsmokers) women undergoing IVF, classified as non-smokers (n = 102)	Found higher frequencies of diploid oocytes in smokers than in non-smokers, and a very significant dose effect (increased frequency with increased smoking). The observed increased proportion of analysable oocytes in the smoker group suggests an earlier delay in oocyte maturation, compared with non-smokers.		Study shows that external factors, like cigarette smoking, may be hazardous to the viability and function of developing	Good paper with direct relevance to human fertility.	Focus on human oocytes and smoking (not BaP alone)
Zhao et al. (2011)	Reproductive	Chronic	Oral - Najing city (China) tap water	Control = drinking water free of toxins; treatment = Najing tap water with contaminant levels determined by GC/MS. (90 days)	Male mice, age = 3 weeks old (n=40), weight = 18±1 g	In treated mice, flow cytometry analysis of testicular tissue indicated that the relative percentage of the elongated spermatid (HC) decreased significantly. Also slight increases in the relative percentage of round spermatids (1C) and primary spermatocytes (4C) were noted. The ratios of 4C:2C (diploid germ cells) and 1C:2C increased, and testicular histopathology indicated an expansion of interstitial space and a decreased number and size of Leydig cells in treated mice.		Current study suggests that Nanjing City tap water is toxic to the reproductive system of mice and additional study	Drinking water study, including polycyclic aromatic hydrocarbons	Contaminated drinking water study, not specific to BaP
Zheng et al. (2010)	Reproductive	Chronic	Oral gavage	(90 days) Rats were randomly divided into 7 groups; 2 groups received DBP + BaP (DBP+BaP: 50+1 or 250+5 mg/kg/day), 4 groups received DBP or BaP alone (DBP: 50 or 250 mg/kg/day; BaP: 1 or 5 mg/kg/day), and 1 group received vehicle alone (corn oil = control). Dose selection: little	Adult male Sprague– Dawley rats, age = 5 weeks old, BW = 70-100g, n=16/group	ED2+ testicular macrophages (reactive with a differentiation-related antigen present on the resident macrophages) were activated and IL-1β secretion was enhanced. DBP and BaP acted additively, as demonstrated by greater IL-1β secretion relative to each compound alone. These observations suggest that exposure to DBP plus BaP exerted greater suppression on testosterone production compared with each compound alone. DBP and BaP enhances the mRNA and protein expression of IL-1β in testicular macrophages. Exposure to DBP and BaP alters testicular macrophage subset expression and enhances the ability and efficiency of resident macrophages to secret IL-1β & significantly suppresses testosterone	Hypothetical representation of the effects of chronic exposure to DBP and BaP on testicular macrophage function and testosterone production in the testis of rat (figure 6, p. 35). The	Findings suggest that co-exposure to DBP and BaP had additive effects on increased mRNA expression of IL-1β, although this did not occur in a dose-dependent manner		

Supplemental Table 4. BMD model fit parameters for apical edpoints in Table 3. Benchmark response: BMD_{10}/$BMDL_{10}$ for quantal data (tumor) and BMD_{1SD}/$BMDL_{1SD}$ continuous data (Neurotoxicity, developmental, immunotoxicity and mutations).

Reference	Effect	Best Model	AIC	P-value	BMD	BMDL
Chen et al. (2012)	Developmental toxicity	Hill	191.1	1.0	0.09 (0.05†)	0.05 (0.02†)
De Jong et al. (1999)	Immunotoxicity	Exponential	333.5	0.6	14.0 (7.6†)	8.9 (4.8†)
Lemieux et al. (2011)	Mutations: forestomach	Linear	148.3	0.6	0.49	0.3
Lemieux et al. (2011)	Mutations: lung	Linear	137.7	0.1	2.2	1.4
Lemieux et al. (2011)	Mutations: liver	Power	121.1	1.0	7.2	4.8
Culp et al. (1998)	Forestomach Tumor	LogLogistic	96.5	0.4	0.83	0.54
Wester et al. (2012)	Forestomach Tumor	Multistage	179.9	1.0	1.54 (0.83†)	0.75(0.41†)
Wester et al. (2012)	Liver Tumor	LogLogistic	127.8	0.5	3.27 (1.77†)	2.36 (1.28†)

† For comparison of rat and mouse BMDLs were scaled from rat to mouse by multiplying rat values by C based on the assumption that the physiological processes scale with body weight to the ¾ power (allometric scaling).

Supplementary Table 5: Custom gene list for PCR arrays, including housekeeping genes (denoted by one *) and controls (denoted by two **).

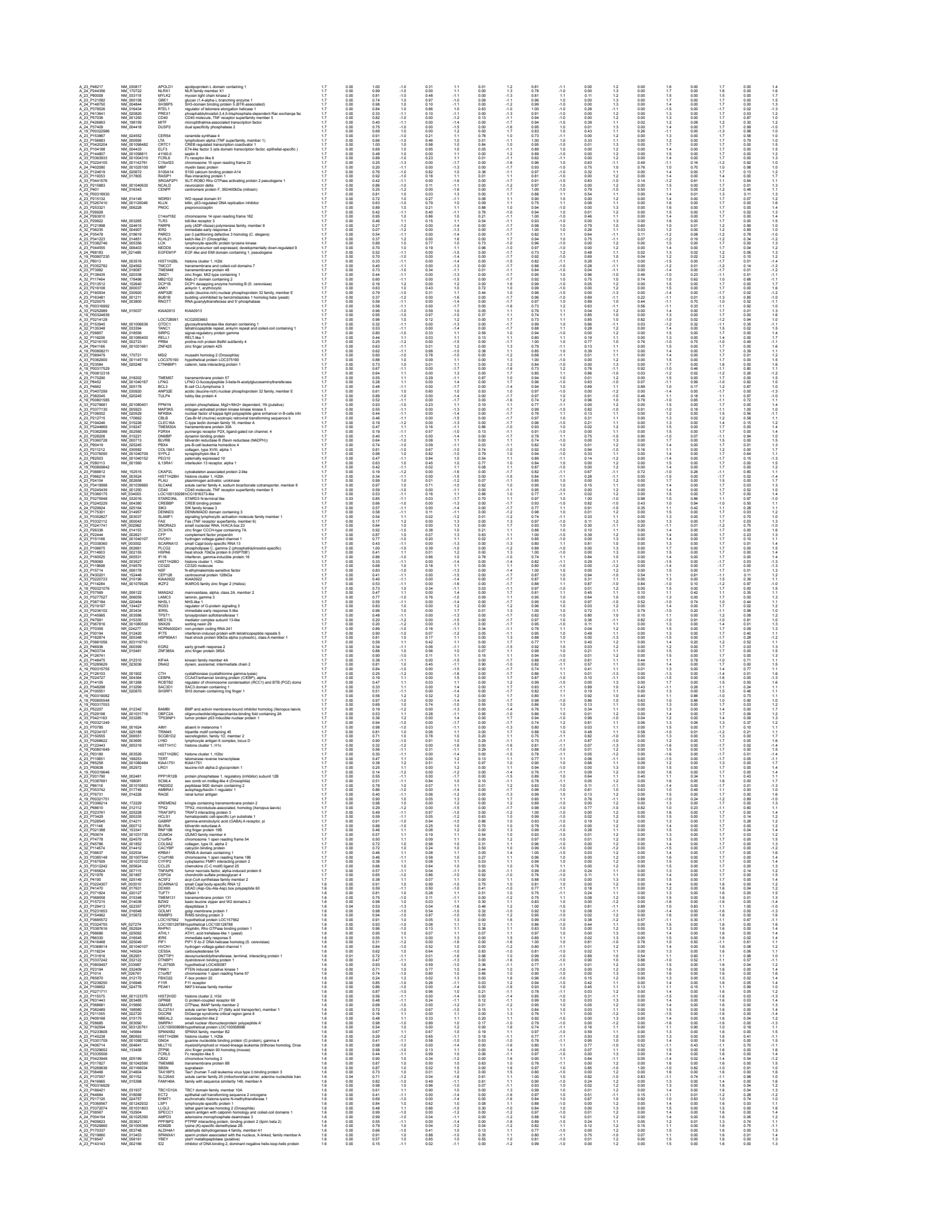
Gene Syml	Refseq #	Official Full Name
Bax	NM_007527	Bcl2-associated X protein
Bcl2	NM_009741	B-cell leukemia/lymphoma 2
Blk	NM_007549	B lymphoid kinase
Blnk	NM_008528	B-cell linker
Btk	NM_013482	Bruton agammaglobulinemia tyrosine kinase
Cd19	NM_009844	CD19 antigen
Ccnb2	NM_007630	Cyclin B2
Ccnd1	NM_007631	Cyclin D1
Ccng1	NM_009831	Cyclin G1
Cd19	NM_009844	CD19 antigen
Cd3g	NM_009850	CD3 antigen, gamma polypeptide
Cd40lg	NM_011616	CD40 ligand
Cd8a	NM_001081110	CD8 antigen, alpha chain
Cd8b1	NM_009858	CD8 antigen, beta chain 1
Cdkn1a	NM_007669	Cyclin-dependent kinase inhibitor 1A (P21)
Cxcr5	NM_007551	Chemokine (C-X-C motif) receptor 5
Cyp1a1	NM_009992	Cytochrome P450, family 1, subfamily a, polypeptide 1
Cyp1b1	NM_009994	Cytochrome P450, family 1, subfamily b, polypeptide 1
Cyr61	NM_010516	Cysteine rich protein 61
Dock2	NM_033374	Dedicator of cyto-kinesis 2
Gadd45a	NM_007836	Growth arrest and DNA-damage-inducible 45 alpha
Gadd45g	NM_011817	Growth arrest and DNA-damage-inducible 45 gamma
Gsta1	NM_008181	Glutathione S-transferase, alpha 1 (Ya)
Gsta2	NM_008182	Glutathione S-transferase, alpha 2 (Yc2)
Mdm2	NM_010786	Transformed mouse 3T3 cell double minute 2
Mgmt	NM_008598	O-6-methylguanine-DNA methyltransferase
Nqo1	NM_008706	NAD(P)H dehydrogenase, quinone 1
Pdgfa	NM_008808	Platelet derived growth factor, alpha
Pmaip1	NM_021451	Phorbol-12-myristate-13-acetate-induced protein 1
Polk	NM_012048	Polymerase (DNA directed), kappa
Sesn2	NM_144907	Sestrin 2
Srxn1	NM_029688	Sulfiredoxin 1 homolog (S. cerevisiae)
Tnfrsf10b	NM_020275	Tumor necrosis factor receptor superfamily, member 10b
Trp53inp1	NM_021897	Transformation related protein 53 inducible nuclear protein 1
Ugt1a9	NM_201644	UDP glucuronosyltransferase 1 family, polypeptide A9
Vegfa	NM_009505	Vascular endothelial growth factor A
Vegfc	NM_009506	Vascular endothelial growth factor C
Zmat3	NM_009517	Zinc finger matrin type 3
Gusb*	NM_010368	Glucuronidase, beta
Hprt*	NM_013556	Hypoxanthine guanine phosphoribosyl transferase
Gapdh*	NM_008084	Glyceraldehyde-3-phosphate dehydrogenase
MGDC**	SA_00106	Mouse Genomic DNA Contamination
RTC**	SA_00104	Reverse Transcription Control
PPC**	SA_00103	Positive PCR Control

Supplementary Table 6: Differentially expressed probes following exposure to BaP at 4 and 24 hours in human TK6 cells (FDR $p \le 0.05^{a}$ and FC $\ge \pm 1.5^{b}$).

				Ranking		4hr: 0.45 µg/mL BaP vs Control		4hr: 1.4 µg/mL BaP vs Control		4hr: 10 µg/mL BaP vs Control		4hr: 1 µg/mL Cisplatin vs Control		24hr: 0.45 µg/mL BaP vs Control		24hr: 1.4 µg/mL BaP vs Control		24hr: 10 µg/mL BaP vs Control		24hr: 1 µg/mL Cisplatin vs Control	
PROBE_ID	REFSEQ	GENE_SYMBOL	GENE_NAME	Fold Rank	min. p-value	FDR p-value	Fold change	FDR p-value	Fold change	FDR p-value	Fold change	FDR p-value	Fold change	FDR p-value	Fold change	FDR p-value	Fold change	FDR p-value	Fold change	FDR p-value	Fold change
A_23_P16523	NM_004864	GDF15	growth differentiation factor 15	13.8	0.00	0.10	1.9	0.00	3.7	0.00	6.3	0.86	1.2	0.00	2.7	0.00	6.7	0.00	10.4	0.00	13.8
A_23_P5392	NM_004881	TP53I3	tumor protein p53 inducible protein 3	12.2	0.00	0.24	1.2	0.00	1.4	0.00	2.6	0.95	-1.0	0.00	3.2	0.00	12.2	0.00	12.0	0.00	7.8
A_33_P3392077	NM_004881	TP53I3	tumor protein p53 inducible protein 3	12.2	0.00	0.22	1.2	0.00	1.5	0.00	2.7	0.94	-1.0	0.00	3.2	0.00	12.2	0.00	12.0	0.00	7.6
A_23_P302568	NM_003459	SLC30A3	solute carrier family 30 (zinc transporter), member 3	9.6	0.00	0.76	-1.0	0.89	1.0	0.51	1.1	0.93	-1.0	0.13	1.2	0.00	4.0	0.00	7.2	0.00	9.6
A_23_P45871	NM_006820	IFI44L	interferon-induced protein 44-like	9.2	0.00	0.99	1.0	0.95	-1.0	0.59	-1.1	0.99	1.0	0.01	1.5	0.00	3.3	0.00	9.2	0.00	2.7
A_23_P64721	NM_006018	HCAR3	hydroxycarboxylic acid receptor 3	9.1	0.00	0.68	-1.0	0.26	-1.1	0.91	1.0	0.98	1.0	0.00	2.1	0.00	5.5	0.00	9.1	0.00	3.2
A_23_P52266	NM_001548	IFIT1	interferon-induced protein with tetratricopeptide repeats 1	8.4	0.00	0.23	-1.4	0.29	-1.2	0.00	-1.6	0.80	1.1	0.13	1.4	0.00	4.5	0.00	8.4	0.00	3.0
A_23_P11543	NM_000147	FUCA1	fucosidase, alpha-L- 1, tissue	6.8	0.00	0.15	1.3	0.00	1.4	0.00	1.6	0.98	1.0	0.00	1.7	0.00	3.6	0.00	4.3	0.00	6.8
A_23_P206280	NM_201525	GPR56	G protein-coupled receptor 56	6.2	0.00	0.74	-1.0	0.83	-1.0	0.99	1.0	1.00	1.0	0.01	1.2	0.00	2.7	0.00	3.6	0.00	6.2
A_23_P214080	NM_001964	EGR1	early growth response 1	6.0	0.00	0.23	-1.4	0.00	-2.1	0.00	-6.0	0.95	-1.0	0.67	1.1	0.33	1.2	0.01	1.5	0.40	1.2
A_32_P452655	NM_001040078	LGALS9C	lectin, galactoside-binding, soluble, 9C	5.8	0.00	0.36	-1.1	0.80	1.0	0.28	-1.1	0.99	1.0	0.00	1.5	0.00	3.6	0.00	5.8	0.00	3.5
A_23_P207564	NM_002984	CCL4	chemokine (C-C motif) ligand 4	5.5	0.00	0.56	-1.1	0.00	-1.6	0.00	-2.1	0.82	1.1	0.00	1.5	0.00	3.0	0.00	5.5	0.06	1.4
A_32_P79190				5.4	0.00	0.47	1.1	0.02	1.2	0.00	1.5	0.88	1.0	0.00	1.8	0.00	3.8	0.00	5.4	0.00	3.5
A_23_P120883	NM_002133	HMOX1	heme oxygenase (decycling) 1	5.4	0.00	0.37	1.3	0.00	2.2	0.00	5.4	0.91	-1.1	0.43	-1.2	0.50	-1.1	0.98	1.0	0.81	1.1
A_33_P3354607	NM_002984	CCL4	chemokine (C-C motif) ligand 4	5.3	0.00	0.52	-1.1	0.00	-1.5	0.00	-2.0	0.97	1.0	0.00	1.5	0.00	2.9	0.00	5.3	0.04	1.3
A_33_P3316273	NM_002983	CCL3	chemokine (C-C motif) ligand 3	5.1	0.00	0.76	-1.1	0.03	-1.3	0.00	-2.5	0.85	1.1	0.00	1.5	0.00	3.0	0.00	5.1	0.01	1.5
A_23_P23074	NM_006417	IFI44	interferon-induced protein 44	5.0	0.00	0.49	-1.1	0.74	-1.0	0.48	-1.1	0.91	1.0	0.12	1.2	0.00	2.5	0.00	5.0	0.00	2.0
A_33_P3276693	NM_002632	PGF	placental growth factor	5.0	0.00	0.50	1.1	0.00	1.3	0.00	1.8	0.73	-1.1	0.00	1.5	0.00	3.4	0.00	5.0	0.00	4.6
A_24_P778906				5.0	0.00	0.26	1.2	0.01	1.3	0.00	1.6	0.89	1.0	0.00	1.7	0.00	3.5	0.00	5.0	0.00	3.3
A_23_P56659	NM_133637	DQX1	DEAQ box RNA-dependent ATPase 1	5.0	0.00	0.19	1.1	0.18	1.1	0.00	1.2	0.88	-1.0	0.00	1.8	0.00	4.3	0.00	5.0	0.00	4.0
A_33_P3402611				4.8	0.00	0.27	1.2	0.00	1.5	0.00	2.2	0.93	1.0	0.00	1.6	0.00	3.5	0.00	4.8	0.00	3.1
A_19_P00805639				4.8	0.00	0.12	1.7	0.00	3.0	0.00	4.8	0.94	1.1	0.12	1.5	0.00	2.1	0.00	2.4	0.07	1.8
A_23_P116557	NM_009587	LGALS9	lectin, galactoside-binding, soluble, 9	4.8	0.00	0.91	1.0	0.77	-1.0	0.16	-1.1	0.92	-1.0	0.00	1.5	0.00	2.9	0.00	4.8	0.00	2.9
A_23_P154605	NM_018837	SULF2	sulfatase 2	4.7	0.00	0.34	1.1	0.31	1.1	0.11	1.1	0.79	-1.1	0.00	1.4	0.00	2.7	0.00	3.5	0.00	4.7
A_23_P340019	NM_178844	NLRC3	NLR family, CARD domain containing 3	4.7	0.00	0.92	-1.0	0.99	-1.0	0.64	1.0	0.99	-1.0	0.13	1.2	0.00	1.8	0.00	2.7	0.00	4.7
A_19_P00330666				4.5	0.00	0.23	1.5	0.00	2.9	0.00	4.5	0.80	1.2	0.44	1.2	0.00	1.8	0.00	1.8	0.13	1.6
A_23_P49546	NM_000835	GRIN2C	glutamate receptor, ionotropic, N-methyl D-aspartate 2C	4.5	0.00	0.15	1.7	0.00	3.5	0.00	3.7	0.99	1.0	0.20	1.5	0.00	3.0	0.00	4.5	0.01	2.5
A_24_P303524	NM_182924	MICALL2	MICAL-like 2	4.5	0.00	0.53	1.1	0.11	1.2	0.00	1.7	0.99	-1.0	0.15	1.2	0.00	2.6	0.00	3.5	0.00	4.5
A_23_P48550	NM_015005	KIAA0284	KIAA0284	4.5	0.00	0.90	1.0	0.21	1.1	0.05	1.2	0.91	1.0	0.20	1.2	0.00	2.6	0.00	3.2	0.00	4.5
A_19_P00800061				4.4	0.00	0.23	1.2	0.00	1.3	0.00	1.8	0.92	-1.0	0.00	1.6	0.00	3.2	0.00	4.4	0.00	3.3
A_24_P270728	NM_001042483	NUPR1	nuclear protein, transcriptional regulator, 1	4.4	0.00	0.89	1.0	0.35	1.1	0.01	1.1	0.96	-1.0	0.27	1.1	0.00	2.9	0.00	4.1	0.00	4.4
A_33_P3296181	NM_001001437	CCL3L3	chemokine (C-C motif) ligand 3-like 3	4.3	0.00	0.97	-1.0	0.05	-1.2	0.00	-2.0	0.97	1.0	0.01	1.3	0.00	2.4	0.00	4.3	0.03	1.3
A_33_P3347241				4.2	0.00	0.39	1.1	0.08	1.2	0.00	1.5	0.79	1.1	0.00	1.5	0.00	3.0	0.00	4.2	0.00	3.1
A_33_P3376971	NM_024111	CHAC1	ChaC, cation transport regulator homolog 1 (E. coli)	4.2	0.00	0.60	-1.1	0.00	-3.3	0.00	-4.2	0.78	1.2	0.58	-1.1	0.74	-1.1	0.48	1.1	0.05	1.6
A_23_P254353	NM_006647	NOXA1	NADPH oxidase activator 1	4.2	0.00	0.99	1.0	0.93	-1.0	1.00	1.0	0.97	-1.1	0.94	1.1	0.00	4.2	0.43	1.4	0.69	1.4
A_24_P172481	NM_006074	TRIM22	tripartite motif containing 22	4.1	0.00	0.10	1.4	0.00	1.6	0.00	2.3	0.90	1.1	0.00	1.8	0.00	3.1	0.00	4.1	0.00	2.8
A_24_P378019	NM_004031	IRF7	interferon regulatory factor 7	4.1	0.00	0.84	1.0	0.00	1.4	0.00	1.9	0.99	-1.0	0.03	1.3	0.00	2.3	0.00	4.1	0.00	1.7
A_23_P14734	NM_015920	RPS27L	ribosomal protein S27-like	4.1	0.00	0.23	1.2	0.00	1.4	0.00	1.6	0.98	-1.0	0.00	2.2	0.00	3.7	0.00	4.1	0.00	3.0
A_19_P00318559				4.1	0.00	0.25	1.4	0.00	2.5	0.00	4.1	0.97	1.0	0.11	1.4	0.00	2.5	0.00	2.7	0.00	2.5
A_23_P139600	NM_004658	RASAL1	RAS protein activator like 1 (GAP1 like)	4.1	0.00	0.94	-1.0	0.95	-1.0	0.37	-1.1	0.90	-1.0	0.80	1.0	0.00	1.7	0.00	2.1	0.00	4.1
A_24_P228130	NM_001001437	CCL3L3	chemokine (C-C motif) ligand 3-like 3	4.0	0.00	0.95	-1.0	0.07	-1.2	0.00	-2.0	0.85	1.1	0.13	1.2	0.00	2.3	0.00	4.0	0.05	1.3
A_33_P3263938	NM_203347	LCN15	lipocalin 15	3.9	0.00	0.94	-1.0	0.22	1.1	0.00	1.4	0.74	-1.1	0.23	1.2	0.00	3.3	0.00	3.9	0.00	3.4
A_19_P00805072				3.9	0.00	0.19	1.5	0.00	2.5	0.00	3.9	0.99	-1.0	0.10	1.5	0.00	1.9	0.00	2.1	0.14	1.5
A_24_P925664	NM_002392	MDM2	Mdm2 p53 binding protein homolog (mouse)	3.8	0.00	0.03	1.6	0.00	1.8	0.00	2.7	0.81	1.1	0.00	1.7	0.00	2.8	0.00	3.8	0.00	3.3
A_33_P3376965	NM_024111	CHAC1	ChaC, cation transport regulator homolog 1 (E. coli)	3.8	0.00	0.70	-1.1	0.00	-3.0	0.00	-3.8	0.81	1.1	0.48	-1.2	0.48	-1.1	0.94	-1.0	0.21	1.3
A_33_P3356821	NM_178351	LCE1C	late cornified envelope 1C	3.8	0.00	0.57	-1.1	0.98	1.0	0.36	1.1	0.94	1.0	0.18	1.1	0.00	2.2	0.00	3.8	0.00	3.5
A_23_P150053	NM_001613	ACTA2	actin, alpha 2, smooth muscle, aorta	3.8	0.00	0.21	1.1	0.00	1.3	0.00	1.7	0.81	-1.0	0.00	2.0	0.00	3.5	0.00	3.8	0.00	2.6
A_23_P42282	NM_001002029	C4B	complement component 4B (Chido blood group)	3.8	0.00	0.37	1.1	0.29	1.1	0.41	1.0	0.78	-1.1	0.00	1.4	0.00	3.5	0.00	3.8	0.00	3.1
A_19_P00801088				3.7	0.00	0.65	1.1	0.09	1.3	0.00	1.7	0.93	-1.0	0.00	1.7	0.00	2.7	0.00	3.7	0.00	3.3
A_23_P405878	NM_152319	C12orf54	chromosome 12 open reading frame 54	3.7	0.00	0.40	1.1	0.31	1.1	0.02	1.1	0.88	-1.0	0.00	1.6	0.00	2.8	0.00	3.7	0.00	3.0
A_23_P152995	NM_001045	SLC6A4	solute carrier family 6 (neurotransmitter transporter, serotonin), memb	3.7	0.00	0.61	-1.0	0.51	1.0	0.55	-1.0	0.78	-1.1	0.00	1.5	0.00	2.5	0.00	3.7	0.00	1.6
A_19_P00328150				3.7	0.00	0.29	1.4	0.00	2.5	0.00	3.7	0.89	1.1	0.38	1.2	0.01	1.6	0.00	1.7	0.14	1.5
A_23_P162288	NM_005379	MYO1A	myosin IA	3.7	0.00	0.99	-1.0	0.33	1.1	0.00	1.3	0.95	-1.0	0.01	1.2	0.00	2.1	0.00	2.6	0.00	3.7
A_24_P89457	NM_078467	CDKN1A	cyclin-dependent kinase inhibitor 1A (p21, Cip1)	3.6	0.00	0.12	1.6	0.00	2.7	0.00	3.3	0.84	1.1	0.01	1.7	0.00	2.7	0.00	3.6	0.00	3.0
A_33_P3356811	NM_178353	LCE1E	late cornified envelope 1E	3.6	0.00	0.52	1.1	0.00	1.2	0.00	1.4	0.99	1.0	0.03	1.2	0.00	2.5	0.00	3.6	0.00	3.6
A_19_P00801523				3.6	0.00	0.24	1.4	0.00	2.4	0.00	3.6	0.98	1.0	0.20	1.4	0.00	1.9	0.00	2.1	0.08	1.7
A_33_P3367984	NM_173076	ABCA12	ATP-binding cassette, sub-family A (ABC1), member 12	3.6	0.00	0.55	1.1	0.98	1.0	0.26	-1.1	0.95	-1.0	0.00	1.4	0.00	2.9	0.00	3.1	0.00	3.6
A_24_P382319	NM_001712	CEACAM1	carcinoembryonic antigen-related cell adhesion molecule 1 (biliary gly	3.6	0.00	0.29	1.2	0.03	1.2	0.00	1.3	0.96	1.0	0.00	1.6	0.00	2.7	0.00	3.4	0.00	3.6
A_23_P382775	NM_014417	BBC3	BCL2 binding component 3	3.6	0.00	0.24	1.5	0.00	2.4	0.00	3.6	0.77	1.3	0.20	1.4	0.00	2.2	0.00	2.7	0.00	3.0
A_19_P00811456				3.5	0.00	0.09	1.6	0.00	2.1	0.00	2.9	0.99	1.0	0.03	1.6	0.00	2.6	0.00	3.5	0.00	3.2
A_23_P253791	NM_004345	CAMP	cathelicidin antimicrobial peptide	3.5	0.00	0.93	-1.0	0.67	1.0	0.50	1.0	0.93	-1.0	0.00	1.4	0.00	2.4	0.00	3.5	0.00	2.6
A_23_P38154	NM_004110	FDXR	ferredoxin reductase	3.5	0.00	0.12	1.3	0.00	1.7	0.00	2.2	0.93	1.0	0.00	2.0	0.00	3.4	0.00	3.5	0.00	2.9
A_33_P3263538		NEAT1	nuclear paraspeckle assembly transcript 1 (non-protein coding)	3.5	0.00	0.26	1.4	0.00	2.1	0.00	3.5	0.77	1.2	0.59	1.2	0.02	1.6	0.06	1.4	0.08	1.7
A_23_P52986	NM_152718	VWCE	von Willebrand factor C and EGF domains	3.5	0.00	0.28	1.2	0.00	1.8	0.00	1.9	0.92	-1.0	0.01	1.5	0.00	2.5	0.00	3.1	0.00	3.5
A_23_P62901	NM_006763	BTG2	BTG family, member 2	3.5	0.00	0.33	1.2	0.00	2.0	0.00	2.5	0.86	1.1	0.00	1.6	0.00	2.8	0.00	3.5	0.00	2.4
A_23_P52610	NM_000107	DDB2	damage-specific DNA binding protein 2, 48kDa	3.5	0.00	0.18	1.3	0.00	1.6	0.00	2.1	1.00	-1.0	0.00	1.8	0.00	2.9	0.00	3.1	0.00	3.5
A_23_P62890	NM_002053	GBP1	guanylate binding protein 1, interferon-inducible	3.5	0.00	0.62	-1.0	0.87	-1.0	0.06	-1.1	0.81	-1.0	0.00	1.5	0.00	2.4	0.00	3.5	0.00	1.5
A_23_P137016	NM_002970	SAT1	spermidine/spermine N1-acetyltransferase 1	3.5	0.00	0.91	1.0	0.16	1.1	0.01	1.2	0.83	1.1	0.00	1.3	0.00	2.4	0.00	3.5	0.00	2.2
A_23_P52067	NM_198173	GRHL3	grainyhead-like 3 (Drosophila)	3.4	0.00	0.92	-1.0	0.68	1.0	0.16	1.1	0.73	-1.1	0.19	1.1	0.00	1.8	0.00	2.5	0.00	3.4
A_33_P3294277	NM_000896	CYP4F3	cytochrome P450, family 4, subfamily F, polypeptide 3	3.4	0.00	0.50	1.1	0.06	1.2	0.00	1.3	0.95	1.0	0.00	1.3	0.00	2.7	0.00	3.4	0.00	3.1
A_33_P3307495	NM_001199042	STRA6	stimulated by retinoic acid gene 6 homolog (mouse)	3.4	0.00	0.89	-1.0	0.12	1.1	0.05	1.1	0.86	-1.0	0.00	1.6	0.00	2.7	0.00	3.4	0.00	2.1
A_33_P3371718	NM_002970	SAT1	spermidine/spermine N1-acetyltransferase 1	3.4	0.00	0.66	1.1	0.21	1.1	0.03	1.2	0.81	1.1	0.00	1.4	0.00	2.4	0.00	3.4	0.00	2.1
A_33_P3411075	NM_003088	FSCN1	fascin homolog 1, actin-bundling protein (Strongylocentrotus purpurat	3.4	0.00	0.44	1.1	0.00	1.2	0.00	1.3	0.94	-1.0	0.00	1.4	0.00	2.1	0.00	3.4	0.00	1.5
A_23_P57199	NM_178311	GGTLC1	gamma-glutamyltransferase light chain 1	3.3	0.00	0.66	1.0	0.18	1.1	0.00	1.2	0.90	1.0	0.00	1.7	0.00	2.6	0.00	3.3	0.00	2.2
A_33_P3408953	NM_199127	GGTLC2	gamma-glutamyltransferase light chain 2	3.3	0.00	0.30	1.1	0.24	1.1	0.00	1.2	0.84	-1.0	0.00	1.5	0.00	2.4	0.00	3.3	0.00	2.1
A_19_P00316344				3.3	0.00	0.17	1.2	0.00	1.4	0.00	2.0	0.88	1.0	0.00	1.6	0.00	2.9	0.00	3.2	0.00	3.3
A_33_P3413468	NM_001242310	EDA2R	ectodysplasin A2 receptor	3.3	0.00	0.03	1.5	0.00	1.8	0.00	2.6	0.99	1.0	0.01	1.5	0.00	2.5	0.00	3.3	0.00	2.6
A_33_P3232504	NM_199001	C9orf169	chromosome 9 open reading frame 169	3.3	0.00	0.49	1.1	0.04	1.1	0.00	1.7	0.91	-1.0	0.00	1.7	0.00	2.7	0.00	3.3	0.00	2.7
A_33_P3338341	NM_016335	PRODH	proline dehydrogenase (oxidase) 1	3.3	0.00	0.78	1.0	0.32	1.1	0.05	1.1	0.93	1.0	0.00	1.3	0.00	2.6	0.00	3.3	0.00	3.2
A_33_P3229107	NM_001104548	LOC642587	NPC-A-5	3.3	0.00	0.75	1.0	0.23	1.1	0.00	1.4	0.81	-1.1	0.00	1.5	0.00	2.5	0.00	3.3	0.00	1.9
A_23_P69383	NM_031458	PARP9	poly (ADP-ribose) polymerase family, member 9	3.3	0.00	0.51	-1.0	0.53	-1.0	0.04	-1.1	0.81	-1.0	0.00	1.4	0.00	2.3	0.00	3.3	0.00	1.8
A_33_P3252834	NM_012396	PHLDA3	pleckstrin homology-like domain, family A, member 3	3.2	0.00	0.04	1.7	0.00	2.4	0.00	3.2	0.86	1.1	0.05	1.5	0.00	2.2	0.00	2.7	0.00	2.5
A_23_P52761	NM_002423	MMP7	matrix metallopeptidase 7 (matrilysin, uterine)	3.2	0.00	0.83	1.0	0.93	1.0	0.89	-1.0	0.92	-1.0	0.00	1.3	0.00	1.8	0.00	3.2	0.02	1.2
A_23_P201459	NM_022873	IFI6	interferon, alpha-inducible protein 6	3.2	0.00	0.58	1.1	0.16	1.1	0.00	1.3	1.00	1.0	0.00	1.4	0.00	2.0	0.00	3.2	0.00	1.6
A_23_P139786	NM_003733	OASL	2'-5'-oligoadenylate synthetase-like	3.2	0.00	0.39	-1.2	0.74	-1.0	0.05	-1.2	0.90	1.0	0.31	1.2	0.00	2.0	0.00	3.2	0.00	2.2
A_33_P3318668	NM_199001	C9orf169	chromosome 9 open reading frame 169	3.2	0.00	0.46	1.1	0.05	1.1	0.00	1.6	0.83	1.0	0.00	1.6	0.00	2.6	0.00	3.2	0.00	2.7
A_19_P00800245				3.2	0.00	0.72	1.0	0.69	1.0	0.20	-1.1	0.90	1.0	0.00	1.3	0.00	2.0	0.00	3.2	0.01	1.4
A_23_P154986	NM_005265	GGT1	gamma-glutamyltransferase 1	3.2	0.00	0.69	1.0	0.15	1.1	0.01	1.2	0.79	-1.0	0.00	1.5	0.00	2.4	0.00	3.2	0.00	2.1
A_23_P373119	NR_002165	HMGB3P1	high mobility group box 3 pseudogene 1	3.2	0.03	0.93	-1.1	0.94	1.1	0.94	1.1	1.00	-1.0	0.89	-1.1	0.04	-2.9	0.03	-3.2	0.97	-1.1
A_23_P96158	NM_000422	KRT17	keratin 17	3.2	0.00	0.87	1.0	0.45	1.1	0.23	1.1	0.96	1.0	0.00	1.7	0.00	2.9	0.00	3.2	0.00	1.9
A_23_P145895	NR_015381	TP53TG1	TP53 target 1 (non-protein coding)	3.2	0.00	0.71	1.0	0.00	1.2	0.00	1.4	0.79	-1.0	0.00	1.5	0.00	2.5	0.00	3.2	0.00	2.4
A_24_P122137	NM_002309	LIF	leukemia inhibitory factor (cholinergic differentiation factor)	3.2	0.00	0.10	1.5	0.00	2.1	0.00	3.2	0.89	1.1	0.11	1.4	0.00	1.9	0.00	2.4	0.00	2.3
A_33_P3456233				3.2	0.00	0.36	1.1	0.00	1.4	0.00	1.7	0.99	-1.0	0.00	1.6	0.00	2.7	0.00	3.2	0.00	2.6
A_33_P3309491	NM_005704	PTPRU	protein tyrosine phosphatase, receptor type, U	3.1	0.00	0.92	-1.0	0.38	1.0	0.16	-1.1	0.87	-1.0	0.00	1.3	0.00	2.4	0.00	2.8	0.00	3.1
A_23_P819	NM_005101	ISG15	ISG15 ubiquitin-like modifier	3.1	0.00	0.89	-1.0	0.05	1.2	0.01	1.2	0.94	1.0	0.00	1.3	0.00	2.1	0.00	3.1	0.00	1.8
A_33_P3236392	NM_030916	PVRL4	poliovirus receptor-related 4	3.1	0.00	0.39	1.2	0.01	1.3	0.00	1.7	0.91	-1.0	0.30	1.2	0.00	2.3	0.00	3.1	0.00	2.8
A_33_P3420416	NM_002308	LGALS9	lectin, galactoside-binding, soluble, 9	3.1	0.00	0.95	-1.0	0.46	-1.0	0.59	1.0	0.87	-1.0	0.00	1.3	0.00	2.2	0.00	3.1	0.00	2.3
A_23_P121253	NM_003810	TNFSF10	tumor necrosis factor (ligand) superfamily, member 10	3.1	0.00	0.93	-1.0	0.48	1.0	0.25	1.1	0.88	-1.0	0.00	1.3	0.00	2.0	0.00	3.1	0.00	1.9
A_33_P3283599	NR_003366	ANKRD20A8P	ankyrin repeat domain 20 family, member A8, pseudogene	3.1	0.00	0.59	1.1	0.68	1.0	0.00	1.2	0.92	1.0	0.00	1.4	0.00	2.4	0.00	3.1	0.00	2.4
A_33_P3294509	NM_000610	CD44	CD44 molecule (Indian blood group)	3.1	0.00	0.84	1.0	0.18	1.1	0.03	-1.1	0.88	1.0	0.00	1.4	0.00	1.9	0.00	3.1	0.00	1.5
A_23_P168882	NM_033285	TP53INP1	tumor protein p53 inducible nuclear protein 1	3.1	0.00	0.07	1.6	0.00	2.3	0.00	2.6	0.93	1.1	0.28	1.3	0.00	2.0	0.00	3.1	0.00	2.4
A_19_P00325453				3.1	0.00	0.76	1.2	0.60	-1.3	0.00	3.1	0.98	1.0	0.93	1.1	0.92	1.0	0.95	-1.0	0.98	1.0
A_23_P150609	NM_000612	IGF2	insulin-like growth factor 2 (somatomedin A)	3.1	0.00	0.96	1.0	0.45	1.0	0.43	1.0	0.91	-1.0	0.95	-1.0	0.00	1.9	0.00	3.1	0.00	2.6
A_33_P3821778		LOC643401	hypothetical LOC643401	3.0	0.00	0.25	1.3	0.00	2.0	0.00	3.0	1.00	1.0	0.08	1.4	0.00	1.8	0.00	2.4	0.00	2.1
A_19_P00321253				3.0	0.00	0.59	1.2	0.88	-1.0	0.00	2.3	0.96	1.0	0.05	1.6	0.00	2.8	0.00	3.0	0.00	3.0
A_23_P360804	NM_020939	CPNE5	copine V	3.0	0.00	0.85	-1.0	0.62	1.0	0.60	-1.0	0.78	-1.1	0.01	1.2	0.00	1.6	0.00	3.0	0.00	1.6
A_24_P45476	NM_002995	XCL1	chemokine (C motif) ligand 1	3.0	0.00	0.98	-1.0	0.54	1.0	0.80	1.0	0.74	-1.1	0.02	1.2	0.00	1.7	0.00	3.0	0.15	1.1
A_24_P385313	NM_002840	PTPRF	protein tyrosine phosphatase, receptor type, F	3.0	0.00	0.45	1.1	0.35	1.0	0.67	1.0	0.99	1.0	0.00	1.4	0.00	2.5	0.00	3.0	0.00	2.3
A_23_P214821	NM_001955	EDN1	endothelin 1	3.0	0.00	0.68	-1.1	0.42	-1.1	0.85	-1.0	0.91	-1.0	0.00	1.4	0.00	2.1	0.00	3.0	0.12	1.2
A_23_P143713	NM_021822	APOBEC3G	apolipoprotein B mRNA editing enzyme, catalytic polypeptide-like 3G	3.0	0.00	0.57	1.0	0.00	1.2	0.00	1.2	0.76	-1.1	0.00	1.5	0.00	2.4	0.00	3.0	0.00	2.1
A_32_P38467	NR_003584	SNHG8	small nucleolar RNA host gene 8 (non-protein coding)	3.0	0.01	0.70	-1.3	0.01	-3.0	0.38	1.4	1.00	-1.0	1.00	-1.0	0.88	1.1	0.80	1.1	0.92	1.1
A_23_P86283	NM_006762	LAPTM5	lysosomal protein transmembrane 5	3.0	0.00	0.65	1.0	0.34	1.0	0.17	1.1	0.87	-1.0	0.00	1.6	0.00	2.6	0.00	3.0	0.00	2.1
A_33_P3226810	NM_003810	TNFSF10	tumor necrosis factor (ligand) superfamily, member 10	3.0	0.00	0.92	1.0	0.98	-1.0	0.71	-1.0	1.00	-1.0	0.00	1.3	0.00	1.9	0.00	3.0	0.00	1.8
A_24_P42066	NR_003267	GGT3P	gamma-glutamyltransferase 3 pseudogene	3.0	0.00	0.32	1.1	0.05	1.1	0.01	1.1	0.85	-1.0	0.00	1.5	0.00	2.2	0.00	3.0	0.00	2.0
A_23_P1962	NM_004585	RARRES3	retinoic acid receptor responder (tazarotene induced) 3	2.9	0.00	0.47	-1.0	0.60	1.0	0.11	1.0	0.78	-1.0	0.00	1.3	0.00	2.4	0.00	2.9	0.00	1.8
A_23_P34915	NM_001040619	ATF3	activating transcription factor 3	2.9	0.00	0.48	-1.1	0.04	-1.3	0.00	-1.4	0.75	1.2	0.05	1.3	0.00	1.7	0.00	2.1	0.00	2.9
A_33_P3294608	NM_017458	MVP	major vault protein	2.9	0.00	0.80	1.0	0.34	1.0	0.00	1.1	0.93	-1.0	0.00	1.4	0.00	2.1	0.00	2.9	0.00	1.5
A_23_P157593	NM_004198	CHRNA6	cholinergic receptor, nicotinic, alpha 6	2.9	0.00	0.96	-1.0	0.02	1.1	0.00	1.3	0.94	-1.0	0.00	1.5	0.00	2.3	0.00	2.7	0.00	2.9
A_19_P00811052				2.9	0.00	0.23	1.3	0.00	2.0	0.00	2.9	0.98	-1.0	0.84	1.0	0.10	1.3	0.06	1.3	0.30	1.2
A_19_P00811688				2.9	0.00	0.10	1.5	0.00	2.2	0.00	2.9	0.82	1.1	0.17	1.4	0.00	1.8	0.00	2.1	0.03	1.8
A_23_P24004	NM_001547	IFIT2	interferon-induced protein with tetratricopeptide repeats 2	2.9	0.00	0.09	-1.8	0.05	-1.5	0.00	-2.2	0.75	1.3	0.76	1.1	0.00	2.1	0.00	2.8	0.00	2.9
A_23_P85800	NM_001803	CD52	CD52 molecule	2.9	0.00	0.52	1.0	0.00	1.1	0.00	1.1	0.95	-1.0	0.00	1.6	0.00	2.2	0.00	2.9	0.00	2.0
A_33_P3350094	NM_001145112	PATL2	protein associated with topoisomerase II homolog 2 (yeast)	2.9	0.00	0.96	-1.0	0.93	-1.0	0.91	1.0	0.87	-1.0	0.00	1.4	0.00	1.8	0.00	2.9	0.00	1.7
A_33_P3327642	NM_001039775	AIM1L	absent in melanoma 1-like	2.9	0.00	0.66	1.1	0.30	1.1	0.00	1.2	0.99	-1.0	0.00	1.3	0.00	2.2	0.00	2.7	0.00	2.9
A_19_P00322523				2.9	0.00	0.26	1.3	0.00	2.0	0.00	2.9	0.94	-1.0	0.50	1.2	0.01	1.5	0.00	1.5	0.11	1.4
A_24_P85775	NM_001039477	C1orf38	chromosome 1 open reading frame 38	2.8	0.00	0.66	-1.0	0.09	-1.1	0.07	-1.1	0.99	1.0	0.01	1.2	0.00	1.8	0.00	2.8	0.00	1.4
A_23_P62647	NM_003037	SLAMF1	signaling lymphocytic activation molecule family member 1	2.8	0.00	0.73	-1.0	0.00	-1.3	0.00	-1.2	0.76	1.1	0.00	1.3	0.00	1.9	0.00	2.8	0.03	1.2
A_23_P155257	NM_032682	FOXP1	forkhead box P1	2.8	0.00	0.18	-1.3	0.00	-2.0	0.00	-2.8	0.95	1.0	0.41	1.2	0.00	1.5	0.00	1.9	0.17	1.3
A_33_P3281408	NM_001127401	YPEL5	yippee-like 5 (Drosophila)	2.8	0.00	0.64	-1.0	0.17	1.1	0.00	1.2	0.88	1.0	0.00	1.3	0.00	2.2	0.00	2.8	0.00	1.9
A_33_P3382498	NM_001098612	SIGLEC14	sialic acid binding Ig-like lectin 14	2.8	0.00	0.93	1.0	0.67	1.0	0.27	1.1	0.86	1.0	0.00	1.3	0.00	2.2	0.00	2.8	0.00	2.7
A_32_P319200	NM_199127	GGTLC2	gamma-glutamyltransferase light chain 2	2.8	0.00	0.10	1.1	0.11	1.1	0.00	1.1	0.74	-1.1	0.00	1.5	0.00	2.3	0.00	2.8	0.00	1.9
A_33_P3361707	NM_002392	MDM2	Mdm2 p53 binding protein homolog (mouse)	2.8	0.00	0.08	1.5	0.00	2.0	0.00	2.8	0.95	1.0	0.04	1.4	0.00	2.2	0.00	2.7	0.00	2.5
A_33_P3400763	NM_001080400	PLIN4	perilipin 4	2.8	0.00	0.80	1.1	0.74	1.0	0.26	1.1	0.90	-1.1	0.42	1.1	0.00	2.2	0.00	2.8	0.00	1.8
A_19_P00317872				2.7	0.00	0.05	1.3	0.08	1.2	0.03	1.2	0.87	-1.0	0.00	1.4	0.00	2.0	0.00	2.7	0.00	2.0
A_23_P145874	NM_152703	SAMD9L	sterile alpha motif domain containing 9-like	2.7	0.00	0.96	1.0	0.05	-1.1	0.00	-1.2	0.88	1.0	0.00	1.3	0.00	2.0	0.00	2.7	0.00	1.6
A_23_P6263	NM_002463	MX2	myxovirus (influenza virus) resistance 2 (mouse)	2.7	0.00	0.91	-1.0	0.07	-1.1	0.04	-1.1	0.94	1.0	0.00	1.3	0.00	1.9	0.00	2.7	0.00	1.5
A_24_P274270	NM_139266	STAT1	signal transducer and activator of transcription 1, 91kDa	2.7	0.00	0.93	-1.0	0.90	-1.0	0.91	-1.0	0.90	-1.0	0.00	1.2	0.00	1.8	0.00	2.7	0.00	1.3
A_19_P00317871				2.7	0.00	0.19	1.3	0.84	1.0	0.01	1.3	0.83	-1.1	0.00	1.4	0.00	2.1	0.00	2.7	0.00	2.0
A_24_P353638	NM_021181	SLAMF7	SLAM family member 7	2.7	0.00	0.62	1.0	0.24	1.1	0.27	1.0	0.78	1.0	0.00	1.2	0.00	1.6	0.00	2.7	0.00	1.3
A_23_P65442	NM_006084	IRF9	interferon regulatory factor 9	2.7	0.00	0.51	1.1	0.54	-1.0	0.88	-1.0	0.73	1.1	0.00	1.4	0.00	2.0	0.00	2.7	0.00	1.6
A_23_P353524	NM_005547	IVL	involucrin	2.7	0.00	0.86	1.0	0.67	-1.0	0.64	-1.0	0.99	1.0	0.06	1.1	0.00	1.6	0.00	2.7	0.00	1.3
A_24_P178175	NM_005265	GGT1	gamma-glutamyltransferase 1	2.7	0.00	0.56	1.0	0.17	1.1	0.00	1.1	0.76	-1.1	0.00	1.5	0.00	2.2	0.00	2.7	0.00	1.9
A_33_P3384133	NM_001163075	C17orf99	chromosome 17 open reading frame 99	2.7	0.00	1.00	-1.0	0.28	1.1	1.00	-1.0	0.87	-1.0	0.00	1.4	0.00	2.2	0.00	2.7	0.00	1.9
A_32_P347617	NM_181773	APOBEC3H	apolipoprotein B mRNA editing enzyme, catalytic polypeptide-like 3H	2.7	0.00	0.36	1.1	0.03	1.1	0.00	1.2	0.88	-1.0	0.00	1.7	0.00	2.7	0.00	2.6	0.00	2.3
A_23_P38346	NM_024119	DHX58	DEXH (Asp-Glu-X-His) box polypeptide 58	2.7	0.00	0.59	-1.0	0.03	1.1	0.72	-1.0	0.97	-1.0	0.00	1.2	0.00	2.0	0.00	2.7	0.00	1.8
A_19_P00809313				2.7	0.00	0.37	1.3	0.00	1.9	0.00	2.7	0.77	1.2	0.27	1.3	0.00	1.9	0.00	1.8	0.02	2.1
A_33_P3387831	NM_024053	CENPM	centromere protein M	2.7	0.01	0.64	-1.3	0.01	-2.7	0.51	1.3	1.00	-1.0	0.95	1.0	0.90	1.1	0.96	-1.0	0.91	1.1
A_33_P3321657	NM_005529	HSPG2	heparan sulfate proteoglycan 2	2.7	0.00	0.26	1.2	0.00	1.4	0.00	1.4	0.88	-1.0	0.00	1.5	0.00	2.2	0.00	2.7	0.00	2.2
A_33_P3389286	NM_006142	SFN	stratifin	2.7	0.00	0.94	-1.0	0.05	1.2	0.11	1.1	0.92	-1.0	0.01	1.3	0.00	2.0	0.00	2.3	0.00	2.7
A_19_P00807829				2.7	0.01	0.93	-1.1	0.98	-1.0	0.85	-1.1	0.98	-1.0	0.94	-1.1	0.01	2.7	0.99	-1.0	0.96	-1.1
A_33_P3289296	NM_183240	TMEM37	transmembrane protein 37	2.7	0.00	0.83	1.0	0.03	-1.2	0.01	1.2	0.99	-1.0	0.00	1.5	0.00	2.1	0.00	2.7	0.00	1.7
A_23_P214627	NM_004847	AIF1	allograft inflammatory factor 1	2.7	0.00	1.00	-1.0	0.96	1.0	0.30	1.1	0.79	1.0	0.00	1.4	0.00	2.3	0.00	2.7	0.00	1.8
A_33_P3415430	NM_005346	HSPA1B	heat shock 70kDa protein 1B	2.6	0.00	0.28	1.2	0.00	1.9	0.00	2.6	0.97	-1.0	0.17	-1.2	0.00	-1.4	0.00	-1.4	0.22	-1.3
A_33_P3352098	NM_021201	MS4A7	membrane-spanning 4-domains, subfamily A, member 7	2.6	0.00	0.97	1.0	0.75	-1.0	0.22	-1.1	0.75	-1.1	0.00	1.4	0.00	1.8	0.00	2.6	0.00	1.5
A_33_P3692979		LOC283485	hypothetical protein LOC283485	2.6	0.00	0.52	1.1	0.22	1.1	0.00	1.2	0.91	1.0	0.00	1.3	0.00	2.0	0.00	2.6	0.00	1.5
A_32_P197561	NM_024007	EBF1	early B-cell factor 1	2.6	0.00	0.32	-1.2	0.00	-1.7	0.00	-2.6	0.91	1.0	0.23	1.2	0.00	1.4	0.00	1.4	0.16	1.2
A_23_P356616	NM_145804	ABTB2	ankyrin repeat and BTB (POZ) domain containing 2	2.6	0.00	0.45	-1.1	0.00	-1.6	0.00	-1.8	0.97	-1.0	0.09	1.2	0.00	1.7	0.00	2.6	0.02	1.4
A_19_P00808783				2.6	0.00	0.12	1.5	0.00	2.2	0.00	2.6	0.82	1.1	0.21	1.3	0.00	1.6	0.00	1.9	0.08	1.5
A_23_P205370	NM_016150	ASB2	ankyrin repeat and SOCS box containing 2	2.6	0.00	0.39	1.1	0.23	1.1	0.66	-1.0	0.88	-1.0	0.04	1.2	0.00	2.1	0.00	2.6	0.00	1.4
A_23_P64058	NM_153819	RASGRP2	RAS guanyl releasing protein 2 (calcium and DAG-regulated)	2.6	0.00	0.78	-1.0	0.29	1.1	0.88	1.0	0.89	-1.0	0.00	1.4	0.00	1.9	0.00	2.6	0.00	2.1
A_33_P3383955	NM_000107	DDB2	damage-specific DNA binding protein 2, 48kDa	2.6	0.00	0.19	1.2	0.00	1.5	0.00	1.9	0.95	-1.0	0.00	1.7	0.00	2.3	0.00	2.5	0.00	2.6
A_33_P3734384		LOC285957	hypothetical protein LOC285957	2.6	0.00	0.87	1.0	0.30	1.1	0.18	1.1	0.94	-1.0	0.00	1.5	0.00	2.2	0.00	2.6	0.00	1.6
A_33_P3250963	NR_015381	TP53TG1	TP53 target 1 (non-protein coding)	2.6	0.00	0.59	1.0	0.00	1.2	0.00	1.4	0.79	-1.0	0.00	1.4	0.00	2.2	0.00	2.6	0.00	1.9
A_23_P55828	NM_005624	CCL25	chemokine (C-C motif) ligand 25	2.6	0.00	0.97	1.0	0.17	1.1	0.06	1.1	0.92	1.0	0.00	1.5	0.00	2.2	0.00	2.6	0.00	1.8
A_19_P00320033				2.6	0.00	0.22	1.3	0.00	1.8	0.00	2.6	0.85	1.1	0.79	1.1	0.10	1.2	0.23	1.2	0.28	1.2
A_23_P40108	NM_001853	COL9A3	collagen, type IX, alpha 3	2.6	0.00	0.99	1.0	0.11	1.1	0.22	1.1	0.81	-1.1	0.00	1.4	0.00	2.2	0.00	2.6	0.00	2.4
A_23_P132159	NM_017414	USP18	ubiquitin specific peptidase 18	2.6	0.00	0.64	-1.0	0.33	1.1	0.13	-1.1	0.84	-1.0	0.00	1.2	0.00	1.7	0.00	2.6	0.00	1.6
A_23_P333640	NM_173462	PAPLN	papilin, proteoglycan-like sulfated glycoprotein	2.6	0.00	0.92	1.0	0.35	1.1	0.00	1.5	0.84	1.0	0.00	1.4	0.00	2.3	0.00	2.4	0.00	2.6
A_23_P23221	NM_001924	GADD45A	growth arrest and DNA-damage-inducible, alpha	2.6	0.00	0.39	1.2	0.00	1.5	0.00	1.6	0.85	1.1	0.21	1.2	0.00	1.7	0.00	2.0	0.00	2.6
A_23_P80040	NM_006404	PROCR	protein C receptor, endothelial	2.6	0.00	0.79	1.0	0.18	1.1	0.13	1.1	0.91	1.0	0.01	1.2	0.00	1.8	0.00	2.4	0.00	2.6
A_33_P3384287	NM_002579	PALM	paralemmin	2.6	0.00	0.45	-1.1	0.35	-1.1	0.32	-1.1	0.87	-1.0	0.00	1.4	0.00	2.0	0.00	2.6	0.00	1.6
A_23_P161769	NM_021603	FXYD2	FXYD domain containing ion transport regulator 2	2.6	0.00	0.32	1.1	0.34	1.0	0.24	1.1	0.89	-1.0	0.00	1.2	0.00	2.0	0.00	2.6	0.00	1.9
A_23_P3312	NM_005545	ISLR	immunoglobulin superfamily containing leucine-rich repeat	2.6	0.00	0.80	1.0	0.49	-1.0	0.88	-1.0	0.79	1.1	0.00	1.5	0.00	2.1	0.00	2.6	0.00	1.6
A_32_P210202	NM_203394	E2F7	E2F transcription factor 7	2.5	0.00	0.16	1.4	0.00	2.0	0.00	2.5	0.88	1.1	0.61	1.1	0.31	1.2	0.15	1.2	0.04	1.6
A_24_P58894				2.5	0.00	0.97	1.0	0.60	1.2	0.72	1.2	0.99	1.0	0.96	-1.0	0.03	-2.1	0.00	-2.5	0.62	-1.3
A_23_P101407	NM_000064	C3	complement component 3	2.5	0.00	0.40	1.1	0.95	-1.0	0.63	-1.0	0.77	-1.1	0.00	1.4	0.00	1.9	0.00	2.5	0.00	1.4
A_23_P58407	NM_001076	UGT2B15	UDP glucuronosyltransferase 2 family, polypeptide B15	2.5	0.00	0.80	1.0	0.00	1.1	0.99	-1.0	0.99	-1.0	0.00	1.5	0.00	2.3	0.00	2.5	0.00	1.8
A_33_P3389634	NM_001747	CAPG	capping protein (actin filament), gelsolin-like	2.5	0.00	0.41	1.0	0.12	1.1	0.01	1.1	0.74	-1.0	0.00	1.4	0.00	2.0	0.00	2.5	0.00	1.6
A_24_P557479	NM_017523	XAF1	XIAP associated factor 1	2.5	0.00	0.71	-1.0	0.52	-1.0	0.29	-1.1	0.88	-1.0	0.05	1.1	0.00	1.6	0.00	2.5	0.00	1.3
A_23_P311740	NM_015089	CUL9	cullin 9	2.5	0.00	0.72	1.0	0.09	1.1	0.00	1.2	0.78	1.1	0.00	1.4	0.00	2.3	0.00	2.5	0.00	2.5
A_33_P3243702	NM_198582	KLHL30	kelch-like 30 (Drosophila)	2.5	0.00	0.38	1.1	0.61	1.0	0.60	1.0	0.82	1.1	0.24	1.1	0.00	1.5	0.00	1.6	0.00	2.5
A_23_P392126	NM_001076680	C17orf108	chromosome 17 open reading frame 108	2.5	0.00	0.94	1.0	0.13	1.1	0.02	1.2	0.97	1.0	0.00	1.4	0.00	2.2	0.00	2.5	0.00	1.8
A_23_P113283	NM_022470	ZMAT3	zinc finger, matrin-type 3	2.5	0.00	0.05	1.3	0.00	1.4	0.00	1.8	0.94	-1.0	0.00	1.4	0.00	1.9	0.00	2.5	0.00	1.7
A_23_P86710	NM_001018071	FRMPD2	FERM and PDZ domain containing 2	2.5	0.00	0.65	1.0	0.87	1.0	0.92	-1.0	0.93	-1.0	0.21	1.1	0.00	1.7	0.00	2.5	0.01	1.3
A_33_P3213064	NM_005419	STAT2	signal transducer and activator of transcription 2, 113kDa	2.5	0.00	0.79	1.0	0.26	1.1	0.00	1.2	0.84	1.0	0.00	1.2	0.00	2.0	0.00	2.5	0.00	2.1
A_33_P3403942	NM_080721	C20orf123	chromosome 20 open reading frame 123	2.5	0.00	0.99	-1.0	0.86	-1.0	0.00	-1.1	0.77	-1.0	0.00	1.4	0.00	1.9	0.00	2.5	0.00	1.6
A_23_P210482	NM_000022	ADA	adenosine deaminase	2.5	0.00	0.50	-1.0	0.82	1.0	0.86	1.0	0.80	-1.0	0.00	1.4	0.00	2.2	0.00	2.5	0.00	2.1
A_23_P51646	NM_004073	PLK3	polo-like kinase 3	2.5	0.00	0.17	1.3	0.00	1.8	0.00	2.5	0.85	1.1	0.24	1.2	0.01	1.4	0.00	1.8	0.01	1.7
A_23_P105012	NM_017878	HRASLS2	HRAS-like suppressor 2	2.5	0.00	0.99	-1.0	0.23	1.1	0.18	1.1	0.96	1.0	0.00	1.3	0.00	2.0	0.00	2.5	0.00	1.7
A_23_P70670	NM_004233	CD83	CD83 molecule	2.5	0.00	0.75	1.0	0.00	-1.2	0.00	-1.3	0.74	1.1	0.00	1.4	0.00	1.9	0.00	2.5	0.00	1.2
A_24_P309594	NM_017842	SLC48A1	solute carrier family 48 (heme transporter), member 1	2.5	0.00	0.48	1.1	0.00	1.4	0.00	2.5	0.88	-1.0	0.77	1.0	0.84	1.0	0.24	-1.1	0.43	1.1
A_23_P127367	NM_021173	POLD4	polymerase (DNA-directed), delta 4	2.4	0.00	0.69	-1.0	0.97	1.0	0.06	-1.1	0.76	-1.0	0.00	1.5	0.00	2.3	0.00	2.4	0.00	1.6
A_19_P00805272				2.4	0.00	0.66	-1.1	0.92	1.0	0.49	-1.0	0.87	-1.0	0.91	1.0	0.00	1.5	0.00	2.0	0.00	2.4
A_23_P31725	NM_001715	BLK	B lymphoid tyrosine kinase	2.4	0.00	0.81	-1.0	0.71	1.0	0.70	-1.0	0.87	-1.0	0.00	1.3	0.00	1.6	0.00	2.4	0.02	1.2
A_23_P21207	NM_003335	UBA7	ubiquitin-like modifier activating enzyme 7	2.4	0.00	0.26	1.1	0.03	1.1	0.00	1.2	0.76	-1.1	0.00	1.5	0.00	2.0	0.00	2.4	0.00	1.7
A_23_P393645	NM_139025	ADAMTS13	ADAM metallopeptidase with thrombospondin type 1 motif, 13	2.4	0.00	0.93	1.0	0.54	1.0	0.07	1.1	0.92	-1.0	0.00	1.3	0.00	2.0	0.00	2.4	0.00	1.8
A_23_P19291	NM_001069	TUBB2A	tubulin, beta 2A	2.4	0.00	0.96	1.0	0.00	1.1	0.01	1.1	0.91	-1.0	0.00	1.2	0.00	1.7	0.00	2.4	0.00	1.2
A_23_P204087	NM_016817	OAS2	2'-5'-oligoadenylate synthetase 2, 69/71kDa	2.4	0.00	0.86	-1.0	0.77	1.0	0.65	-1.0	0.80	-1.0	0.01	1.2	0.00	1.7	0.00	2.4	0.00	1.5
A_33_P3305758	NM_001747	CAPG	capping protein (actin filament), gelsolin-like	2.4	0.00	0.29	1.1	0.02	1.1	0.05	1.1	0.83	-1.0	0.00	1.4	0.00	2.0	0.00	2.4	0.00	1.5
A_33_P3422289				2.4	0.00	0.79	1.0	0.50	1.1	0.02	1.2	0.97	-1.0	0.00	1.2	0.00	1.8	0.00	2.4	0.00	1.6
A_23_P207911	NM_016113	TRPV2	transient receptor potential cation channel, subfamily V, member 2	2.4	0.00	0.96	1.0	0.31	1.0	0.72	1.0	0.92	-1.0	0.00	1.3	0.00	2.0	0.00	2.4	0.00	1.5
A_23_P120931	NM_014508	APOBEC3C	apolipoprotein B mRNA editing enzyme, catalytic polypeptide-like 3C	2.4	0.00	0.45	1.1	0.01	1.2	0.00	1.3	0.78	-1.1	0.00	1.5	0.00	2.4	0.00	2.4	0.00	1.9
A_23_P131676	NM_020311	CXCR7	chemokine (C-X-C motif) receptor 7	2.4	0.00	0.59	-1.1	0.00	-1.7	0.01	-1.2	0.75	1.1	0.04	1.3	0.00	1.9	0.00	2.4	0.02	1.4
A_33_P3293381		RASSF4	Ras association (RalGDS/AF-6) domain family member 4	2.4	0.00	0.99	-1.0	0.11	-1.1	0.56	1.0	0.89	1.0	0.00	1.3	0.00	1.6	0.00	2.4	0.39	1.1
A_24_P260639	NM_005320	HIST1H1D	histone cluster 1, H1d	2.4	0.00	0.37	-1.2	0.00	-2.4	0.00	-2.2	0.96	1.0	0.09	-1.3	0.00	-1.6	0.00	-1.9	0.27	-1.3
A_33_P3264846	NM_152703	SAMD9L	sterile alpha motif domain containing 9-like	2.4	0.00	0.42	-1.1	0.25	-1.1	0.00	-1.2	0.93	1.0	0.00	1.2	0.00	1.8	0.00	2.4	0.00	1.5
A_23_P435833	NM_003934	FUBP3	far upstream element (FUSE) binding protein 3	2.4	0.01	0.89	-1.1	0.84	-1.1	0.96	-1.0	1.00	1.0	0.90	-1.1	0.01	2.4	0.98	-1.0	0.96	-1.0
A_23_P108835	NM_016061	YPEL5	yippee-like 5 (Drosophila)	2.4	0.00	0.76	-1.0	0.16	1.1	0.01	1.1	0.90	1.0	0.00	1.3	0.00	2.0	0.00	2.4	0.00	1.6
A_24_P295590	NM_032023	RASSF4	Ras association (RalGDS/AF-6) domain family member 4	2.4	0.00	0.59	-1.1	0.13	-1.1	0.02	-1.2	0.86	-1.0	0.00	1.4	0.00	1.8	0.00	2.4	0.03	1.3
A_19_P00321332				2.4	0.00	0.25	1.2	0.01	1.3	0.00	2.4	0.87	1.1	0.24	1.2	0.00	1.7	0.00	1.9	0.00	1.7
A_23_P64828	NM_002534	OAS1	2'-5'-oligoadenylate synthetase 1, 40/46kDa	2.4	0.00	0.93	1.0	0.95	-1.0	0.01	-1.2	0.76	-1.1	0.00	1.2	0.00	1.8	0.00	2.4	0.00	1.5
A_19_P00801354				2.4	0.00	0.22	1.2	0.00	1.5	0.00	2.1	1.00	1.0	0.00	1.5	0.00	2.1	0.00	2.2	0.00	2.4
A_24_P223124	NM_022763	FNDC3B	fibronectin type III domain containing 3B	2.4	0.00	0.40	-1.1	0.00	-2.0	0.00	-2.4	1.00	1.0	0.76	-1.0	0.80	-1.0	0.57	1.1	0.93	-1.0
A_23_P436281	NM_001034077	HIST2H4B	histone cluster 2, H4b	2.4	0.00	0.33	-1.2	0.00	-1.5	0.00	-1.7	0.76	-1.1	0.01	-1.4	0.00	-2.1	0.00	-2.4	0.00	-1.6
A_33_P3360972	NM_001077594	EXOC3L4	exocyst complex component 3-like 4	2.4	0.00	0.77	-1.0	0.48	1.0	0.65	-1.0	0.93	-1.0	0.00	1.3	0.00	1.8	0.00	2.4	0.00	1.5
A_23_P398566	NM_173200	NR4A3	nuclear receptor subfamily 4, group A, member 3	2.4	0.00	0.46	-1.2	0.14	-1.3	0.00	-2.4	0.91	1.1	0.89	-1.0	0.98	1.0	0.87	1.0	0.94	1.0
A_23_P98402	NM_001040455	SIDT2	SID1 transmembrane family, member 2	2.4	0.00	0.67	1.0	0.17	1.1	0.00	1.2	0.82	-1.0	0.00	1.3	0.00	1.9	0.00	2.4	0.00	1.8
A_23_P41114	NM_005213	CSTA	cystatin A (stefin A)	2.4	0.00	0.47	1.0	0.27	1.0	0.00	1.1	0.92	1.0	0.00	1.3	0.00	1.9	0.00	2.4	0.00	1.4
A_23_P357101	NM_145298	APOBEC3F	apolipoprotein B mRNA editing enzyme, catalytic polypeptide-like 3F	2.4	0.00	0.56	1.1	0.05	1.1	0.00	1.3	0.79	-1.1	0.00	1.5	0.00	2.3	0.00	2.4	0.00	1.8
A_24_P206343	NM_033054	MYO1G	myosin IG	2.4	0.00	0.56	1.1	0.10	1.1	0.39	1.1	0.90	-1.0	0.00	1.4	0.00	1.8	0.00	2.4	0.00	1.4
A_23_P328740	NR_026875	NEURL3	neuralized homolog 3 (Drosophila) pseudogene	2.4	0.00	0.41	-1.1	0.23	-1.1	0.00	1.2	0.90	-1.0	0.00	1.3	0.00	1.8	0.00	2.4	0.00	2.1
A_23_P120822	NM_016327	UPB1	ureidopropionase, beta	2.4	0.00	0.97	1.0	0.97	1.0	0.96	1.0	0.85	-1.0	0.00	1.3	0.00	1.8	0.00	2.4	0.00	1.4
A_33_P3225512	NM_002535	OAS2	2'-5'-oligoadenylate synthetase 2, 69/71kDa	2.4	0.00	0.82	-1.0	0.60	1.0	0.59	-1.0	0.94	-1.0	0.05	1.2	0.00	1.6	0.00	2.4	0.00	1.5
A_19_P00318409				2.4	0.00	0.53	1.1	0.00	1.6	0.00	2.4	0.88	1.1	0.62	1.1	0.00	1.5	0.00	1.5	0.04	1.5
A_19_P00317953				2.4	0.00	0.76	-1.0	0.04	1.1	0.27	-1.1	0.85	-1.0	0.00	1.6	0.00	2.1	0.00	2.4	0.00	2.1
A_23_P258887	NM_012190	ALDH1L1	aldehyde dehydrogenase 1 family, member L1	2.4	0.00	0.88	-1.0	0.06	-1.3	0.69	1.1	0.85	-1.1	0.04	1.4	0.00	2.0	0.00	2.4	0.06	1.4
A_32_P96692	NM_006502	POLH	polymerase (DNA directed), eta	2.4	0.00	0.12	1.4	0.00	1.8	0.00	2.4	0.97	1.0	0.11	1.3	0.00	1.6	0.00	1.9	0.01	1.8
A_33_P3267799	NM_006847	LILRB4	leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM	2.4	0.00	0.89	1.0	0.13	1.1	0.34	-1.0	0.97	1.0	0.00	1.4	0.00	2.0	0.00	2.4	0.00	1.7
A_33_P3365002	NM_001069	TUBB2A	tubulin, beta 2A	2.4	0.00	0.49	1.1	0.00	1.2	0.00	1.2	0.84	-1.0	0.00	1.2	0.00	1.6	0.00	2.4	0.05	1.2
A_19_P00810040				2.4	0.00	0.05	1.5	0.00	1.8	0.00	2.3	0.93	1.0	0.03	1.4	0.00	1.9	0.00	2.4	0.00	2.1
A_19_P00321333				2.3	0.00	0.40	1.1	0.00	1.3	0.00	2.3	0.92	1.0	0.80	1.0	0.00	1.6	0.00	1.7	0.00	1.6
A_19_P00805860				2.3	0.00	0.23	1.3	0.00	1.8	0.00	2.3	0.98	1.0	0.38	1.2	0.01	1.4	0.00	1.5	0.17	1.3
A_23_P34835	NM_005572	LMNA	lamin A/C	2.3	0.00	0.66	1.0	0.00	1.2	0.00	1.2	0.78	-1.0	0.00	1.4	0.00	2.0	0.00	2.3	0.00	1.6

A_23_P87879	NM_001781	CD69	CD69 molecule	2.3	0.00	0.87	1.0	0.00	-1.6	0.00	-2.3	0.76	1.1	0.00	1.4	0.00	1.9	0.00	2.2	0.01	1.4
A_23_P87560	NM_001731	BTG1	B-cell translocation gene 1, anti-proliferative	2.3	0.00	0.87	1.0	0.02	1.2	0.00	1.3	0.99	1.0	0.01	1.3	0.00	1.9	0.00	2.3	0.00	2.0
A_33_P3411744	NR_004428	EGOT	eosinophil granule ontogeny transcript (non-protein coding)	2.3	0.00	0.73	-1.0	0.53	1.0	0.83	-1.0	0.73	-1.1	0.00	1.3	0.00	1.7	0.00	2.3	0.40	1.1
A_23_P126167	NM_002249	KCNN3	potassium intermediate/small conductance calcium-activated channel	2.3	0.00	0.92	1.0	0.04	1.1	0.60	-1.0	0.79	-1.0	0.00	1.6	0.00	2.2	0.00	2.3	0.00	2.0
A_23_P359540	NM_003540	HIST1H4F	histone cluster 1, H4f	2.3	0.00	0.27	-1.2	0.00	-1.6	0.00	-1.8	0.74	-1.2	0.01	-1.4	0.00	-2.1	0.00	-2.3	0.02	-1.5
A_32_P94087	NR_027153	RPL21P44	ribosomal protein L21 pseudogene 44	2.3	0.01	0.65	-1.3	0.01	-2.3	0.76	1.1	0.99	-1.0	0.94	-1.0	0.94	1.0	0.79	1.1	0.94	1.1
A_33_P3283611	NM_001549	IFIT3	interferon-induced protein with tetratricopeptide repeats 3	2.3	0.00	0.26	-1.3	0.19	-1.2	0.01	-1.4	0.92	1.1	0.16	1.3	0.00	2.2	0.00	2.3	0.05	1.6
A_33_P3410836	NM_003539	HIST1H4D	histone cluster 1, H4d	2.3	0.00	0.25	-1.2	0.00	-1.7	0.00	-1.8	0.77	-1.1	0.02	-1.3	0.00	-2.0	0.00	-2.3	0.00	-1.6
A_19_P00326143				2.3	0.00	0.79	1.1	0.02	1.3	0.00	1.6	0.94	-1.0	0.39	1.1	0.00	1.7	0.00	2.3	0.00	1.8
A_23_P502750	NM_002392	MDM2	Mdm2 p53 binding protein homolog (mouse)	2.3	0.00	0.10	1.5	0.00	1.8	0.00	2.3	0.98	-1.0	0.31	1.2	0.00	1.7	0.00	2.1	0.00	2.2
A_23_P16252	NM_002257	KLK1	kallikrein 1	2.3	0.00	0.99	1.0	0.13	1.1	0.99	-1.0	0.78	-1.0	0.00	1.2	0.00	2.1	0.00	2.3	0.00	2.0
A_23_P415021	NM_014033	METTL7A	methyltransferase like 7A	2.3	0.00	0.77	-1.0	0.74	1.0	0.96	-1.0	0.91	-1.0	0.00	1.5	0.00	2.3	0.00	1.9	0.00	2.0
A_24_P223384	NM_003513	HIST1H2AB	histone cluster 1, H2ab	2.3	0.00	0.29	-1.2	0.00	-2.0	0.00	-2.3	0.95	-1.0	0.16	-1.2	0.00	-1.7	0.00	-1.9	0.04	-1.4
A_32_P120604		SNX29	sorting nexin 29	2.3	0.00	0.23	-1.3	0.00	-2.0	0.00	-2.3	0.93	1.0	0.49	1.1	0.00	1.5	0.00	1.6	0.05	1.5
A_33_P3326767	XR_110123	LOC100129597	hypothetical LOC100129597	2.3	0.00	0.98	1.0	0.57	1.0	0.11	1.1	0.99	-1.0	0.02	1.2	0.00	1.8	0.00	2.2	0.00	2.3
A_23_P70480	NM_003546	HIST1H4L	histone cluster 1, H4l	2.3	0.00	0.27	-1.2	0.00	-1.6	0.00	-1.8	0.96	-1.0	0.02	-1.3	0.00	-2.0	0.00	-2.3	0.01	-1.5
A_32_P44453	NM_002194	INPP1	inositol polyphosphate-1-phosphatase	2.3	0.00	0.84	1.0	0.92	-1.0	0.23	1.1	0.85	-1.0	0.00	1.3	0.00	1.6	0.00	2.3	0.00	1.6
A_23_P142310	NM_017572	MKNK2	MAP kinase interacting serine/threonine kinase 2	2.3	0.00	0.73	-1.0	0.11	-1.1	0.28	-1.0	0.74	1.1	0.00	1.2	0.00	1.6	0.00	2.3	0.02	1.2
A_23_P312150	NM_001956	EDN2	endothelin 2	2.3	0.00	0.38	1.1	0.02	1.2	0.00	1.3	0.85	1.0	0.00	1.3	0.00	1.8	0.00	2.3	0.00	2.3
A_33_P3356816	NM_178349	LCE1B	late cornified envelope 1B	2.3	0.00	0.78	1.0	0.73	1.0	0.09	1.1	0.77	-1.1	0.64	1.0	0.00	1.6	0.00	2.3	0.00	2.1
A_24_P339514	NM_000767	CYP2B6	cytochrome P450, family 2, subfamily B, polypeptide 6	2.3	0.00	0.30	-1.1	0.82	1.0	0.89	1.0	0.84	-1.0	0.00	1.2	0.00	1.7	0.00	2.3	0.00	1.6
A_23_P87150	NM_004811	LPXN	leupaxin	2.3	0.00	0.71	1.0	0.86	1.0	0.37	1.0	0.87	1.0	0.00	1.2	0.00	1.6	0.00	2.3	0.00	1.4
A_33_P3293266	NM_032326	TMEM175	transmembrane protein 175	2.3	0.00	0.79	-1.0	0.52	1.0	0.05	1.1	0.95	-1.0	0.00	1.3	0.00	1.9	0.00	2.3	0.00	1.9
A_33_P3280044	NM_013275	ANKRD11	ankyrin repeat domain 11	2.3	0.00	0.61	-1.1	0.00	-1.6	0.00	-2.3	0.80	1.1	0.48	-1.1	0.86	-1.0	0.85	-1.0	0.46	1.1
A_33_P3227472	NM_138432	SDSL	serine dehydratase-like	2.3	0.00	0.50	-1.1	0.22	1.1	0.01	1.1	0.73	-1.1	0.00	1.3	0.00	2.0	0.00	2.3	0.00	1.6
A_19_P00316109				2.3	0.04	0.93	1.1	0.55	-1.3	0.72	-1.2	0.95	-1.1	0.83	-1.1	0.04	2.3	0.79	-1.1	0.91	-1.1
A_33_P3222451		AKT1S1	AKT1 substrate 1 (proline-rich)	2.3	0.00	0.91	-1.0	0.04	-1.1	0.04	-1.1	0.95	1.0	0.00	1.2	0.00	1.6	0.00	2.3	0.01	1.3
A_23_P166797	NM_022147	RTP4	receptor (chemosensory) transporter protein 4	2.3	0.00	0.79	1.0	0.41	1.0	0.95	-1.0	0.94	1.0	0.00	1.2	0.00	2.0	0.00	2.3	0.00	1.8
A_23_P214487	NM_003542	HIST1H4C	histone cluster 1, H4c	2.3	0.00	0.15	-1.3	0.00	-1.7	0.00	-1.9	0.97	-1.0	0.00	-1.4	0.00	-2.0	0.00	-2.3	0.02	-1.5
A_23_P94230	NM_015364	LY96	lymphocyte antigen 96	2.3	0.00	0.62	1.1	0.02	1.2	0.03	1.2	0.93	1.0	0.00	1.4	0.00	2.0	0.00	2.3	0.00	1.7
A_19_P00321802				2.3	0.03	0.92	-1.1	0.83	-1.1	0.85	-1.1	0.95	-1.1	0.85	-1.1	0.03	2.3	0.73	-1.2	0.99	-1.0
A_23_P12884	NM_005308	GRK5	G protein-coupled receptor kinase 5	2.3	0.00	0.31	-1.2	0.00	-1.8	0.00	-2.3	0.97	-1.0	0.76	1.0	0.30	1.1	0.47	1.1	0.22	1.2
A_23_P32938	NM_004398	DDX10	DEAD (Asp-Glu-Ala-Asp) box polypeptide 10	2.3	0.00	0.36	-1.2	0.00	-1.6	0.00	-2.3	0.99	1.0	0.71	-1.1	0.17	-1.1	0.15	-1.1	0.24	-1.2
A_33_P3257182	NM_004533	MYBPC2	myosin binding protein C, fast type	2.3	0.00	0.37	-1.1	0.03	1.2	0.09	1.1	1.00	-1.0	0.00	1.3	0.00	2.1	0.00	2.3	0.00	2.1
A_23_P320578	NM_002928	RGS16	regulator of G-protein signaling 16	2.3	0.00	0.19	-1.2	0.01	-1.3	0.00	-1.3	0.76	1.1	0.07	1.2	0.00	1.7	0.00	2.3	0.00	1.7
A_23_P323685	NM_003543	HIST1H4H	histone cluster 1, H4h	2.3	0.00	0.32	-1.2	0.00	-1.6	0.00	-1.8	0.78	-1.1	0.02	-1.4	0.00	-2.1	0.00	-2.3	0.01	-1.6
A_19_P00320924				2.3	0.00	0.53	1.1	0.00	1.6	0.00	2.3	0.98	1.0	0.93	-1.0	0.70	1.1	0.60	1.1	0.83	1.1
A_33_P3271111	NM_004148	NINJ1	ninjurin 1	2.3	0.00	0.98	1.0	0.23	-1.1	0.52	1.0	0.98	-1.0	0.00	1.3	0.00	1.7	0.00	2.3	0.00	1.5
A_33_P3244643	NM_001101376	FAM183A	family with sequence similarity 183, member A	2.3	0.00	0.88	1.1	0.00	2.3	0.38	1.3	0.90	1.1	0.65	1.2	0.44	1.2	0.49	1.2	0.73	1.2
A_33_P3309319	NM_145886	PIDD	p53-induced death domain protein	2.3	0.00	0.20	1.2	0.00	1.5	0.00	2.3	0.88	1.0	0.01	1.3	0.00	1.6	0.00	1.7	0.00	1.6
A_23_P133095	NM_014247	RAPGEF2	Rap guanine nucleotide exchange factor (GEF) 2	2.3	0.00	0.35	-1.1	0.00	-1.7	0.00	-2.3	0.94	1.0	1.00	-1.0	0.81	1.0	0.98	1.0	0.92	-1.0
A_33_P3397658		SYNPO	synaptopodin	2.3	0.00	0.76	-1.0	0.10	1.1	0.18	-1.1	0.81	-1.0	0.00	1.3	0.00	1.7	0.00	2.3	0.00	1.4
A_23_P106389	NM_003612	SEMA7A	semaphorin 7A, GPI membrane anchor (John Milton Hagen blood gro	2.3	0.00	0.73	1.0	0.81	-1.0	0.29	-1.1	0.83	1.1	0.09	1.2	0.00	1.7	0.00	2.3	0.01	1.4
A_33_P3361388	NM_032133	MYCBPAP	MYCBP associated protein	2.3	0.00	0.66	-1.1	0.04	1.2	0.00	1.3	0.96	1.0	0.01	1.2	0.00	2.1	0.00	2.3	0.00	2.1
A_23_P92042	NM_002222	ITPR1	inositol 1,4,5-trisphosphate receptor, type 1	2.3	0.00	0.38	-1.2	0.00	-1.7	0.00	-2.3	0.97	-1.0	0.47	1.1	0.01	1.3	0.00	1.5	0.59	1.1
A_23_P206077	NM_022767	AEN	apoptosis enhancing nuclease	2.3	0.00	0.12	1.4	0.00	1.9	0.00	2.3	0.91	1.1	0.36	1.2	0.03	1.4	0.00	1.6	0.02	1.6
A_19_P00322332				2.3	0.00	0.83	-1.0	0.01	1.2	0.28	-1.1	0.76	-1.1	0.00	1.5	0.00	2.0	0.00	2.3	0.00	2.0
A_33_P3321836	NM_012401	PLXNB2	plexin B2	2.2	0.00	0.04	1.3	0.00	1.5	0.00	1.6	0.96	1.0	0.00	1.5	0.00	2.0	0.00	2.2	0.00	1.9
A_23_P217845	NM_002928	RGS16	regulator of G-protein signaling 16	2.2	0.00	0.29	-1.2	0.03	-1.2	0.02	-1.2	0.80	1.1	0.03	1.2	0.00	1.7	0.00	2.2	0.00	1.7
A_23_P42746	NM_000265	NCF1	neutrophil cytosolic factor 1	2.2	0.00	0.96	1.0	0.36	1.0	0.79	1.0	0.73	-1.1	0.00	1.4	0.00	1.8	0.00	2.2	0.00	1.5
A_33_P3359017	NM_001082	CYP4F2	cytochrome P450, family 4, subfamily F, polypeptide 2	2.2	0.00	0.28	1.1	0.02	1.2	0.00	1.3	0.77	-1.1	0.24	1.1	0.00	1.6	0.00	1.8	0.00	2.2
A_23_P136355	NM_018194	HHAT	hedgehog acyltransferase	2.2	0.00	0.42	-1.1	0.74	-1.0	0.15	-1.1	0.76	-1.1	0.00	1.3	0.00	1.8	0.00	2.2	0.00	1.8
A_23_P344531	NM_007286	SYNPO	synaptopodin	2.2	0.00	0.74	1.0	0.25	1.1	0.34	1.1	0.85	-1.0	0.00	1.3	0.00	1.7	0.00	2.2	0.00	1.3
A_23_P315571	NM_015150	RFTN1	raftlin, lipid raft linker 1	2.2	0.00	0.58	-1.1	0.00	-1.2	0.00	-1.4	0.75	-1.1	0.00	1.3	0.00	1.7	0.00	2.2	0.02	1.2
A_23_P35082	NM_031459	SESN2	sestrin 2	2.2	0.00	0.78	1.0	0.25	1.1	0.00	1.2	0.84	1.0	0.02	1.2	0.00	1.8	0.00	2.2	0.00	2.0
A_23_P389391	NM_005072	SLC12A4	solute carrier family 12 (potassium/chloride transporters), member 4	2.2	0.00	0.58	1.0	0.13	1.1	0.00	1.2	0.74	-1.1	0.00	1.3	0.00	1.8	0.00	2.2	0.00	1.9
A_23_P372096				2.2	0.00	0.95	1.0	0.18	1.1	0.69	-1.0	0.95	-1.0	0.00	1.3	0.00	1.5	0.00	2.2	0.00	1.3
A_33_P3399064	NR_003285	RN5-8S1	RNA, 5.8S ribosomal 1	2.2	0.00	0.44	-1.1	0.06	1.2	0.00	1.6	0.92	-1.0	0.81	1.0	0.00	1.9	0.00	2.2	0.00	1.6
A_33_P3378880				2.2	0.00	0.45	-1.1	0.00	-1.5	0.00	-1.7	0.82	-1.1	0.21	-1.2	0.00	-1.9	0.00	-2.2	0.00	-1.6
A_23_P92281	NM_014170	GTPBP8	GTP-binding protein 8 (putative)	2.2	0.01	0.65	-1.2	0.01	-2.2	0.91	1.0	0.99	-1.0	0.89	-1.1	0.62	-1.2	0.73	-1.1	0.98	1.0
A_33_P3389599				2.2	0.00	0.48	1.1	0.52	1.0	0.00	1.2	0.74	1.1	0.20	1.1	0.00	1.7	0.00	2.2	0.00	2.1
A_33_P3369716				2.2	0.00	0.94	1.0	0.48	1.0	0.79	1.0	0.73	-1.1	0.00	1.2	0.00	1.5	0.00	2.2	0.02	1.2
A_23_P40174	NM_004994	MMP9	matrix metallopeptidase 9 (gelatinase B, 92kDa gelatinase, 92kDa typ	2.2	0.00	0.94	1.0	0.23	1.1	0.63	1.0	0.85	-1.0	0.00	1.2	0.00	1.5	0.00	2.2	0.00	1.3
A_23_P163639	NM_013275	ANKRD11	ankyrin repeat domain 11	2.2	0.00	0.60	-1.1	0.00	-1.6	0.00	-2.2	0.99	1.0	0.97	1.0	0.85	-1.0	0.98	-1.0	0.94	-1.0
A_23_P94800	NM_002961	S100A4	S100 calcium binding protein A4	2.2	0.00	0.50	1.1	0.04	1.1	0.01	1.2	0.96	1.0	0.00	1.4	0.00	1.8	0.00	2.2	0.00	1.7
A_24_P166407	NM_003544	HIST1H4B	histone cluster 1, H4b	2.2	0.00	0.23	-1.2	0.00	-1.6	0.00	-1.8	0.93	-1.0	0.02	-1.3	0.00	-1.9	0.00	-2.2	0.02	-1.5
A_33_P3240532	NM_015149	RGL1	ral guanine nucleotide dissociation stimulator-like 1	2.2	0.00	0.82	1.0	0.00	-1.3	0.00	-1.3	0.94	1.0	0.00	1.3	0.00	1.7	0.00	2.2	0.00	1.6
A_24_P141707	NM_031479	INHBE	inhibin, beta E	2.2	0.00	0.16	-1.3	0.00	-1.9	0.00	-2.2	0.81	1.1	0.37	-1.1	0.13	-1.2	0.20	-1.2	0.04	1.5
A_33_P3404989	NM_003536	HIST1H3H	histone cluster 1, H3h	2.2	0.00	0.41	-1.2	0.00	-2.2	0.00	-1.7	0.87	-1.1	0.37	-1.2	0.00	-1.8	0.00	-2.1	0.05	-1.6
A_33_P3293573	NM_001077621	VPS37D	vacuolar protein sorting 37 homolog D (S. cerevisiae)	2.2	0.00	0.24	1.2	0.00	1.5	0.00	2.2	0.91	-1.0	0.42	1.1	0.00	1.4	0.00	1.7	0.00	1.8
A_23_P301247	NM_003517	HIST2H2AC	histone cluster 2, H2ac	2.2	0.00	0.26	-1.2	0.00	-1.9	0.00	-2.2	0.99	-1.0	0.34	-1.2	0.00	-1.5	0.00	-1.7	0.36	-1.2
A_33_P3251073	NM_178545	TMEM52	transmembrane protein 52	2.2	0.00	0.26	1.2	0.00	1.6	0.00	2.2	0.79	-1.1	0.82	1.0	0.02	1.2	0.01	1.3	0.00	1.7
A_33_P3474859		LOC203274	hypothetical protein LOC203274	2.2	0.00	0.36	1.2	0.00	1.4	0.00	2.2	0.82	1.1	0.28	1.2	0.00	1.4	0.00	1.4	0.03	1.4
A_33_P3258452	NM_020375	C12orf5	chromosome 12 open reading frame 5	2.2	0.00	0.27	1.3	0.00	1.7	0.00	2.2	0.93	-1.0	0.42	1.2	0.02	1.4	0.00	1.5	0.16	1.4
A_24_P182947	NM_001190259	GCET2	germinal center expressed transcript 2	2.2	0.00	0.48	-1.1	0.06	-1.1	0.02	-1.1	0.88	1.0	0.00	1.3	0.00	1.7	0.00	2.2	0.00	1.4
A_23_P52647	NM_006795	EHD1	EH-domain containing 1	2.2	0.00	0.88	-1.0	0.51	1.0	0.98	1.0	0.89	-1.0	0.00	1.2	0.00	1.7	0.00	2.2	0.00	1.4
A_24_P20873	NM_003495	HIST1H4I	histone cluster 1, H4i	2.2	0.00	0.37	-1.2	0.00	-1.5	0.00	-1.7	0.77	-1.1	0.01	-1.4	0.00	-1.9	0.00	-2.2	0.01	-1.5
A_23_P208706	NM_138764	BAX	BCL2-associated X protein	2.2	0.00	0.82	-1.1	0.18	1.2	0.03	1.4	0.99	1.0	0.14	1.3	0.00	2.0	0.00	2.2	0.00	1.9
A_23_P133408	NM_000758	CSF2	colony stimulating factor 2 (granulocyte-macrophage)	2.2	0.00	0.74	1.0	0.00	-1.2	0.00	-1.2	0.95	1.0	0.81	1.0	0.00	1.5	0.00	2.2	0.14	1.1
A_23_P202978	NM_033292	CASP1	caspase 1, apoptosis-related cysteine peptidase (interleukin 1, beta, c	2.2	0.00	0.69	1.0	0.05	1.2	0.05	1.1	0.95	1.0	0.00	1.3	0.00	1.7	0.00	2.2	0.00	1.7
A_23_P134204	NM_032599	FAM71F1	family with sequence similarity 71, member F1	2.2	0.00	0.46	-1.1	0.31	-1.1	0.24	-1.1	0.92	1.0	0.00	1.3	0.00	1.8	0.00	2.2	0.00	1.4
A_23_P99540	NM_004926	ZFP36L1	zinc finger protein 36, C3H type-like 1	2.2	0.00	0.66	-1.0	0.01	-1.1	0.22	-1.0	0.71	1.1	0.00	1.3	0.00	1.8	0.00	2.2	0.00	1.4
A_24_P170983	NM_194312	ESPNL	espin-like	2.2	0.00	0.49	-1.1	0.63	1.0	0.03	-1.1	0.87	-1.0	0.00	1.2	0.00	1.7	0.00	1.8	0.00	2.2
A_33_P3392405	NM_207373	C10orf99	chromosome 10 open reading frame 99	2.2	0.00	0.81	1.0	0.19	1.1	0.70	1.0	0.74	-1.1	0.00	1.2	0.00	1.8	0.00	2.2	0.00	1.9
A_33_P3242453	NR_003948	HCG22	HLA complex group 22	2.2	0.00	0.60	1.1	0.28	-1.1	0.90	-1.0	0.96	-1.0	0.05	1.2	0.00	1.5	0.00	2.2	0.18	1.1
A_23_P326931	NM_145170	TTC18	tetratricopeptide repeat domain 18	2.2	0.00	0.91	1.0	0.06	-1.1	0.19	1.1	0.73	1.1	0.01	1.3	0.00	1.7	0.00	2.2	0.00	1.5
A_23_P209129	NM_002288	LAIR2	leukocyte-associated immunoglobulin-like receptor 2	2.2	0.00	0.62	1.0	0.18	1.1	0.05	1.1	0.85	-1.0	0.00	1.2	0.00	1.8	0.00	2.2	0.00	1.6
A_19_P00315793				2.2	0.00	0.29	1.1	0.06	1.2	0.00	1.5	0.99	-1.0	0.00	1.4	0.00	2.0	0.00	2.1	0.00	2.2
A_23_P338479	NM_014143	CD274	CD274 molecule	2.2	0.00	0.63	1.0	0.21	-1.1	0.07	1.1	0.94	-1.0	0.00	1.2	0.00	1.7	0.00	2.2	0.00	1.5
A_33_P3312676		MYT1	myelin transcription factor 1	2.2	0.00	0.78	-1.0	0.05	-1.2	0.84	-1.0	0.79	-1.1	0.39	1.1	0.00	1.5	0.00	2.2	0.00	1.9
A_24_P101800	XM_003118803			2.2	0.00	0.58	1.0	0.83	1.0	0.00	1.3	0.78	1.1	0.00	1.3	0.00	1.5	0.00	2.2	0.00	1.6
A_33_P3365432	NM_000631	NCF4	neutrophil cytosolic factor 4, 40kDa	2.2	0.00	0.87	1.0	0.47	1.0	0.90	-1.0	0.87	-1.0	0.00	1.4	0.00	1.8	0.00	2.2	0.00	1.8
A_23_P150018	NM_004419	DUSP5	dual specificity phosphatase 5	2.2	0.00	0.68	-1.1	0.00	-1.4	0.00	-1.5	0.92	1.0	0.34	1.1	0.00	1.7	0.00	2.2	0.18	1.2
A_23_P213385	NM_006317	BASP1	brain abundant, membrane attached signal protein 1	2.2	0.00	0.19	-1.1	0.00	-1.1	0.00	-1.2	0.99	-1.0	0.00	1.3	0.00	1.7	0.00	2.2	0.00	1.3
A_33_P3417865	NM_004926	ZFP36L1	zinc finger protein 36, C3H type-like 1	2.2	0.00	0.99	-1.0	0.95	-1.0	0.00	1.1	0.74	1.1	0.00	1.3	0.00	1.8	0.00	2.2	0.00	1.5
A_33_P3257678	NM_001005464	HIST2H3A	histone cluster 2, H3a	2.2	0.00	0.56	-1.1	0.00	-1.7	0.00	-1.8	0.79	-1.1	0.45	-1.1	0.00	-1.9	0.00	-2.2	0.03	-1.5
A_23_P47857	NM_016551	TM7SF3	transmembrane 7 superfamily member 3	2.2	0.00	0.30	1.1	0.02	1.2	0.00	1.4	0.99	1.0	0.00	1.4	0.00	2.0	0.00	2.2	0.00	1.9
A_33_P3407895	NM_001195833	RINL	Ras and Rab interactor-like	2.2	0.00	0.72	-1.0	0.01	1.2	0.00	1.3	0.88	-1.0	0.00	1.3	0.00	1.9	0.00	2.2	0.00	1.8
A_24_P14634	NM_133455	EMID1	EMI domain containing 1	2.2	0.00	0.98	1.0	0.98	1.0	0.42	-1.1	0.79	-1.1	0.00	1.4	0.00	2.0	0.00	2.2	0.00	1.4
A_33_P3303810	NM_005558	LAD1	ladinin 1	2.2	0.00	0.78	1.0	0.54	-1.0	0.95	-1.0	0.79	-1.1	0.00	1.3	0.00	1.5	0.00	2.2	0.01	1.3
A_33_P3408762	NM_005572	LMNA	lamin A/C	2.2	0.00	0.63	1.0	0.00	1.2	0.00	1.2	0.86	-1.0	0.00	1.3	0.00	1.8	0.00	2.2	0.00	1.5
A_23_P1782	NM_002231	CD82	CD82 molecule	2.2	0.00	0.80	-1.0	0.34	-1.0	0.78	-1.0	0.73	-1.1	0.00	1.2	0.00	1.5	0.00	2.2	0.00	1.2
A_23_P9883	NM_001079821	NLRP3	NLR family, pyrin domain containing 3	2.2	0.00	0.65	-1.1	0.00	-1.7	0.00	-2.2	0.83	1.1	0.05	1.3	0.00	1.7	0.00	2.1	0.02	1.5
A_23_P21495	NM_003890	FCGBP	Fc fragment of IgG binding protein	2.2	0.00	0.51	-1.1	0.63	1.0	0.36	1.0	0.95	1.0	0.00	1.4	0.00	1.8	0.00	2.2	0.00	1.5
A_23_P93282	NM_003535	HIST1H3J	histone cluster 1, H3j	2.2	0.00	0.38	-1.1	0.00	-1.7	0.00	-1.7	1.00	-1.0	0.10	-1.2	0.00	-1.9	0.00	-2.2	0.00	-1.6
A_24_P63019	NM_004633	IL1R2	interleukin 1 receptor, type II	2.2	0.00	0.67	1.0	0.81	1.0	0.97	1.0	0.86	-1.0	0.01	1.2	0.00	1.5	0.00	2.2	0.29	1.1
A_23_P250385	NM_005322	HIST1H1B	histone cluster 1, H1b	2.1	0.00	0.39	-1.2	0.00	-1.8	0.00	-2.0	0.89	1.1	0.01	-1.5	0.00	-1.8	0.00	-2.1	0.11	-1.3
A_33_P3250887	NM_001123225	C22orf41	chromosome 22 open reading frame 41	2.1	0.00	0.45	1.1	0.06	1.1	0.00	1.1	0.99	1.0	0.00	1.3	0.00	1.8	0.00	2.1	0.00	1.4
A_23_P21134	NM_004083	DDIT3	DNA-damage-inducible transcript 3	2.1	0.00	0.47	-1.1	0.00	-2.0	0.00	-2.1	0.76	1.1	0.69	-1.1	0.81	-1.0	0.39	1.1	0.01	1.6
A_33_P3393135				2.1	0.00	0.48	-1.1	0.00	-1.8	0.00	-2.1	0.97	1.0	0.05	-1.3	0.00	-1.8	0.00	-2.0	0.01	-1.5
A_23_P82979	NM_006059	LAMC3	laminin, gamma 3	2.1	0.00	0.81	1.0	0.79	-1.0	0.32	1.1	0.93	-1.0	0.07	1.1	0.00	1.6	0.00	2.1	0.00	1.5
A_19_P00321593				2.1	0.00	0.19	1.2	0.00	1.4	0.00	1.7	0.96	-1.0	0.00	1.4	0.00	2.1	0.00	2.0	0.00	2.1
A_33_P3358750	NM_001010985	MYBPHL	myosin binding protein H-like	2.1	0.00	0.92	1.0	0.23	1.1	0.09	1.1	0.90	1.0	0.00	1.4	0.00	2.1	0.00	2.1	0.00	1.6
A_32_P44394	NM_004833	AIM2	absent in melanoma 2	2.1	0.00	0.19	-1.1	0.02	-1.1	0.08	-1.1	0.94	1.0	0.00	1.2	0.00	1.6	0.00	2.1	0.00	1.4
A_23_P253524	NM_001813	CENPE	centromere protein E, 312kDa	2.1	0.00	0.29	-1.2	0.00	-1.8	0.00	-2.1	0.97	1.0	0.81	-1.0	0.90	1.0	0.09	-1.2	0.99	1.0
A_23_P395374	NM_003539	HIST1H4D	histone cluster 1, H4d	2.1	0.00	0.18	-1.2	0.00	-1.7	0.00	-1.8	0.92	-1.0	0.03	-1.3	0.00	-1.8	0.00	-2.1	0.01	-1.5
A_23_P164528	NM_015285	WDR7	WD repeat domain 7	2.1	0.00	0.41	-1.2	0.00	-1.7	0.00	-2.1	1.00	-1.0	0.69	1.1	0.44	1.1	0.28	1.1	0.54	1.1
A_23_P97932	NM_012228	MSRB2	methionine sulfoxide reductase B2	2.1	0.00	0.53	1.0	0.05	1.1	0.00	1.1	0.98	-1.0	0.00	1.3	0.00	1.7	0.00	2.1	0.00	1.6
A_33_P3244784				2.1	0.00	0.38	-1.1	0.25	-1.1	0.43	-1.1	0.75	-1.1	0.38	1.1	0.00	1.7	0.00	2.1	0.01	1.4
A_23_P122724	NM_004665	VNN2	vanin 2	2.1	0.00	0.45	-1.0	0.72	-1.0	0.01	-1.1	0.99	1.0	0.00	1.4	0.00	2.0	0.00	2.1	0.00	1.8
A_24_P929754	NM_199054	MKNK2	MAP kinase interacting serine/threonine kinase 2	2.1	0.00	0.66	1.0	0.93	1.0	0.66	1.0	0.92	1.0	0.08	1.1	0.00	1.4	0.00	2.1	0.65	1.0
A_23_P252808	NM_012477	WBP1	WW domain binding protein 1	2.1	0.00	0.77	1.0	0.31	1.0	0.00	1.1	1.00	1.0	0.00	1.3	0.00	1.9	0.00	2.1	0.00	1.5
A_33_P3422777	NM_005042	PRH2	proline-rich protein HaeIII subfamily 2	2.1	0.04	0.98	1.0	0.94	1.0	0.97	1.0	1.00	1.0	0.04	2.1	0.91	1.0	0.96	1.0	0.99	1.0
A_32_P52816	NM_016551	TM7SF3	transmembrane 7 superfamily member 3	2.1	0.00	0.44	1.1	0.01	1.3	0.00	1.4	0.78	1.1	0.01	1.3	0.00	1.8	0.00	2.1	0.00	1.7
A_33_P3253394	NM_002287	LAIR1	leukocyte-associated immunoglobulin-like receptor 1	2.1	0.00	0.05	-1.3	0.00	-1.4	0.00	-1.8	0.96	-1.0	0.00	1.4	0.00	1.8	0.00	2.1	0.00	1.6
A_33_P3629678	NM_000093	COL5A1	collagen, type V, alpha 1	2.1	0.00	0.60	1.0	0.29	1.0	0.95	-1.0	0.74	1.1	0.15	1.1	0.00	1.6	0.00	2.1	0.00	1.4
A_33_P3671291		SNORA12	small nucleolar RNA, H/ACA box 12	2.1	0.00	0.82	1.0	0.68	-1.0	0.27	-1.1	0.91	-1.0	0.00	1.3	0.00	1.7	0.00	2.1	0.00	1.4
A_24_P220454	NM_181552	CUX1	cut-like homeobox 1	2.1	0.00	0.38	-1.2	0.00	-1.7	0.00	-2.1	0.92	1.0	0.88	1.0	0.51	1.1	0.73	1.0	0.97	-1.0
A_33_P3328716	NM_144719	CCDC13	coiled-coil domain containing 13	2.1	0.00	0.60	-1.1	0.91	1.0	0.99	1.0	0.83	-1.0	0.71	1.0	0.01	1.2	0.00	1.5	0.00	2.1
A_23_P160159	NM_003039	SLC2A5	solute carrier family 2 (facilitated glucose/fructose transporter), memb	2.1	0.00	0.47	-1.1	0.00	-1.3	0.00	-1.5	0.95	-1.0	0.02	1.3	0.00	1.9	0.00	2.1	0.00	1.7
A_23_P343398	NM_001838	CCR7	chemokine (C-C motif) receptor 7	2.1	0.00	0.43	-1.1	0.00	-1.4	0.02	-1.2	0.97	1.0	0.01	1.3	0.00	1.7	0.00	2.1	0.03	1.3
A_23_P363174	NM_003511	HIST1H2AL	histone cluster 1, H2al	2.1	0.00	0.38	-1.2	0.00	-1.8	0.00	-2.1	0.93	-1.0	0.23	-1.2	0.00	-1.5	0.00	-1.8	0.15	-1.3
A_19_P00321466				2.1	0.00	0.24	1.2	0.00	1.6	0.00	2.1	0.91	-1.0	0.92	1.0	0.24	1.1	0.30	1.1	0.05	1.4
A_23_P85240	NM_016562	TLR7	toll-like receptor 7	2.1	0.00	0.89	-1.0	0.69	-1.0	0.56	-1.0	0.95	1.0	0.02	1.2	0.00	1.5	0.00	2.1	0.01	1.3
A_23_P79134	NM_024310	PLEKHF1	pleckstrin homology domain containing, family F (with FYVE domain)	2.1	0.00	0.20	1.2	0.00	1.5	0.00	2.1	0.93	-1.0	0.26	1.2	0.02	1.3	0.00	1.5	0.01	1.5
A_23_P81859	NM_080596	HIST1H2AH	histone cluster 1, H2ah	2.1	0.00	0.32	-1.2	0.00	-1.8	0.00	-2.1	0.98	-1.0	0.10	-1.2	0.00	-1.7	0.00	-2.0	0.03	-1.4
A_23_P101992	NM_006770	MARCO	macrophage receptor with collagenous structure	2.1	0.00	0.47	1.1	0.32	1.0	0.00	1.2	0.94	1.0	0.00	1.3	0.00	1.7	0.00	2.1	0.00	1.3
A_23_P100141	NM_023076	UNKL	unkempt homolog (Drosophila)-like	2.1	0.00	0.25	1.2	0.00	1.5	0.00	2.1	0.88	1.0	0.65	-1.1	0.05	-1.2	0.23	-1.1	0.84	-1.0
A_23_P384499	NM_020761	RPTOR	regulatory associated protein of MTOR, complex 1	2.1	0.00	0.16	-1.3	0.00	-1.6	0.00	-2.1	0.98	-1.0	1.00	1.0	0.65	-1.1	0.84	-1.0	0.88	-1.0
A_33_P3347869	NM_000064	C3	complement component 3	2.1	0.00	0.88	1.0	0.46	-1.1	0.27	-1.1	0.83	-1.0	0.00	1.3	0.00	1.6	0.00	2.1	0.01	1.3
A_33_P3278649	NM_203468	ENTPD2	ectonucleoside triphosphate diphosphohydrolase 2	2.1	0.00	0.91	1.0	0.62	1.0	0.77	-1.0	0.90	-1.0	0.17	1.1	0.00	1.4	0.00	2.1	0.03	1.2
A_23_P3221	NM_021199	SQRDL	sulfide quinone reductase-like (yeast)	2.1	0.00	0.69	1.0	0.20	1.1	0.33	1.1	0.88	1.0	0.00	1.3	0.00	1.6	0.00	2.1	0.00	1.6
A_33_P3227716	NM_001037666	GATSL3	GATS protein-like 3	2.1	0.00	0.99	1.0	0.05	1.1	0.06	1.1	0.90	1.0	0.00	1.3	0.00	1.5	0.00	2.1	0.00	1.4
A_23_P126836	NM_003326	TNFSF4	tumor necrosis factor (ligand) superfamily, member 4	2.1	0.00	0.83	1.0	0.85	-1.0	0.62	-1.0	0.95	1.0	0.19	1.1	0.00	1.5	0.00	2.1	0.00	1.8
A_23_P203173	NM_001558	IL10RA	interleukin 10 receptor, alpha	2.1	0.00	1.00	-1.0	0.38	-1.1	0.94	1.0	0.97	1.0	0.00	1.3	0.00	1.8	0.00	2.1	0.00	1.7
A_23_P200829	NM_015326	SRGAP2	SLIT-ROBO Rho GTPase activating protein 2	2.1	0.00	0.26	-1.2	0.00	-1.8	0.00	-2.1	0.94	1.0	0.82	1.0	0.38	1.1	0.62	-1.1	0.48	1.1
A_23_P320113	NM_080725	SRXN1	sulfiredoxin 1	2.1	0.00	0.12	1.3	0.00	1.6	0.00	2.1	0.90	-1.0	0.45	-1.1	0.02	-1.3	0.00	-1.4	0.22	-1.2
A_23_P340822	NM_152784	TMEM146	transmembrane protein 146	2.1	0.00	0.98	1.0	0.71	-1.0	0.77	-1.0	0.78	-1.0	0.01	1.1	0.00	1.7	0.00	1.9	0.00	2.1
A_24_P217834	NM_003530	HIST1H3D	histone cluster 1, H3d	2.1	0.00	0.49	-1.1	0.00	-2.1	0.00	-2.0	0.99	1.0	0.14	-1.2	0.00	-1.6	0.00	-1.9	0.08	-1.3
A_23_P126908	NM_003820	TNFRSF14	tumor necrosis factor receptor superfamily, member 14 (herpesvirus e	2.1	0.00	0.79	1.0	0.24	1.1	0.00	1.2	0.99	-1.0	0.00	1.3	0.00	1.6	0.00	2.1	0.00	1.4
A_23_P162127	NM_021825	CCDC90B	coiled-coil domain containing 90B	2.1	0.00	0.67	1.0	0.04	1.1	0.00	1.2	0.96	-1.0	0.00	1.3	0.00	1.7	0.00	2.1	0.00	1.9
A_33_P3211432	NM_000265	NCF1	neutrophil cytosolic factor 1	2.1	0.00	0.84	-1.0	0.97	1.0	0.17	-1.1	0.74	-1.1	0.00	1.3	0.00	1.7	0.00	2.1	0.00	1.5
A_23_P324340	NM_033510	DISP2	dispatched homolog 2 (Drosophila)	2.1	0.00	0.43	-1.1	0.68	1.0	0.62	1.0	0.92	-1.0	0.00	1.3	0.00	1.8	0.00	2.1	0.00	1.6
A_33_P3232294	NM_002223	ITPR2	inositol 1,4,5-trisphosphate receptor, type 2	2.1	0.00	0.50	1.1	0.62	1.1	0.03	1.2	0.90	1.0	0.12	1.2	0.00	1.9	0.00	2.1	0.00	2.1
A_33_P3369393	NM_000265	NCF1	neutrophil cytosolic factor 1	2.1	0.00	0.88	-1.0	0.44	1.0	0.92	1.0	0.79	-1.1	0.00	1.3	0.00	1.7	0.00	2.1	0.00	1.5
A_23_P138194	NM_000433	NCF2	neutrophil cytosolic factor 2	2.1	0.00	0.66	-1.0	0.42	-1.0	0.00	-1.2	0.78	1.0	0.01	1.2	0.00	1.5	0.00	2.1	0.00	1.3
A_24_P142095	NM_006738	AKAP13	A kinase (PRKA) anchor protein 13	2.1	0.00	0.41	-1.1	0.00	-1.6	0.00	-2.1	0.99	1.0	0.89	1.0	0.19	1.1	0.27	1.1	0.63	1.1
A_23_P216920	NM_014397	NEK6	NIMA (never in mitosis gene a)-related kinase 6	2.1	0.00	0.32	-1.1	0.01	-1.2	0.00	-1.4	0.79	-1.0	0.00	1.2	0.00	1.5	0.00	2.1	0.01	1.2
A_33_P3406567	NM_152866	MS4A1	membrane-spanning 4-domains, subfamily A, member 1	2.1	0.00	0.78	1.0	0.02	1.1	0.06	1.1	0.83	1.0	0.00	1.3	0.00	1.7	0.00	2.1	0.00	1.4
A_24_P262127	NM_004165	RRAD	Ras-related associated with diabetes	2.1	0.00	0.48	1.1	0.20	1.1	0.01	-1.2	0.80	1.1	0.48	1.1	0.00	1.4	0.00	2.1	0.00	1.5
A_24_P882732				2.1	0.00	0.50	1.0	0.37	1.0	0.34	1.0	0.80	1.0	0.00	1.3	0.00	2.1	0.00	2.1	0.00	1.6
A_23_P127891	NM_170735	BDNF	brain-derived neurotrophic factor	2.1	0.00	0.62	1.0	0.16	1.1	0.00	1.3	0.98	1.0	0.01	1.2	0.00	1.5	0.00	2.1	0.00	1.5
A_33_P3344229	NM_003538	HIST1H4A	histone cluster 1, H4a	2.1	0.00	0.20	-1.2	0.00	-1.7	0.00	-1.7	0.84	-1.1	0.04	-1.3	0.00	-1.8	0.00	-2.1	0.02	-1.4
A_24_P102821	NM_000952	PTAFR	platelet-activating factor receptor	2.1	0.00	0.42	-1.1	0.02	-1.2	0.00	-1.4	0.81	-1.1	0.00	1.3	0.00	2.1	0.00	2.0	0.00	1.6
A_24_P337397	NM_023039	ANKRA2	ankyrin repeat, family A (RFXANK-like), 2	2.1	0.00	0.38	1.2	0.00	1.4	0.00	1.9	0.80	-1.1	0.18	1.2	0.00	1.7	0.00	2.1	0.00	2.1
A_33_P3292769	NM_145912	NFAM1	NFAT activating protein with ITAM motif 1	2.1	0.00	0.96	1.0	0.53	-1.0	0.01	-1.1	0.78	-1.1	0.00	1.3	0.00	1.9	0.00	2.1	0.00	1.5
A_33_P3262635	NM_177405	CECR1	cat eye syndrome chromosome region, candidate 1	2.1	0.00	0.54	1.0	0.27	1.1	0.29	1.1	0.95	-1.0	0.00	1.4	0.00	1.9	0.00	2.1	0.00	1.6
A_33_P3226050	NM_001037666	GATSL3	GATS protein-like 3	2.1	0.00	0.65	-1.1	0.14	1.1	0.04	1.1	1.00	-1.0	0.14	1.1	0.00	1.6	0.00	2.1	0.00	1.4
A_24_P270460	NM_005532	IFI27	interferon, alpha-inducible protein 27	2.1	0.00	0.71	1.1	0.21	1.1	0.12	1.2	0.81	1.1	0.36	1.1	0.02	1.3	0.00	2.1	0.09	1.3
A_24_P183128	NM_016619	PLAC8	placenta-specific 8	2.1	0.00	0.34	1.1	0.00	1.2	0.00	1.2	0.91	-1.0	0.00	1.3	0.00	1.8	0.00	2.1	0.00	1.6
A_23_P97141	NM_002922	RGS1	regulator of G-protein signaling 1	2.1	0.00	0.57	-1.1	0.00	-1.7	0.00	-2.1	0.78	1.1	0.04	1.3	0.00	1.5	0.00	2.0	0.35	1.2
A_33_P3260669	NM_006281	STK3	serine/threonine kinase 3	2.1	0.00	0.29	-1.1	0.00	-1.5	0.00	-2.1	0.96	1.0	0.71	-1.0	0.39	-1.1	0.22	-1.1	0.62	1.1
A_19_P00316812				2.1	0.00	0.43	1.2	0.00	1.5	0.00	2.1	0.96	-1.0	0.50	1.1	0.00	1.4	0.00	1.4	0.03	1.5
A_33_P3379039	NM_001178126	IGLL5	immunoglobulin lambda-like polypeptide 5	2.1	0.00	1.00	1.0	0.37	1.1	0.80	-1.0	0.80	-1.0	0.00	-1.2	0.00	-1.8	0.00	-2.1	0.00	-1.3
A_19_P00327969				2.1	0.00	0.94	-1.0	0.84	-1.0	0.69	-1.0	0.92	1.0	0.37	1.1	0.00	1.3	0.00	2.1	0.21	1.2
A_33_P3213772	NM_001042758	SRGAP2	SLIT-ROBO Rho GTPase activating protein 2	2.1	0.00	0.33	-1.2	0.00	-2.0	0.00	-2.1	0.82	1.1	0.99	1.0	0.72	1.1	0.99	-1.0	0.54	1.1
A_23_P59045	NM_021052	HIST1H2AE	histone cluster 1, H2ae	2.1	0.00	0.33	-1.2	0.00	-1.7	0.00	-2.1	0.91	-1.0	0.19	-1.2	0.00	-1.7	0.00	-1.9	0.03	-1.4
A_24_P208345	NM_033102	SLC45A3	solute carrier family 45, member 3	2.1	0.00	0.13	-1.1	0.06	-1.1	0.00	-1.3	0.77	-1.1	0.00	1.3	0.00	1.5	0.00	2.1	0.00	1.3
A_23_P128408	NM_016399	TRIAP1	TP53 regulated inhibitor of apoptosis 1	2.1	0.00	0.16	1.3	0.00	1.8	0.00	2.1	0.99	-1.0	0.36	1.2	0.01	1.3	0.00	1.5	0.07	1.4
A_23_P322625	NM_005683	GPR55	G protein-coupled receptor 55	2.1	0.00	0.91	1.0	0.50	-1.0	0.50	1.0	0.87	1.0	0.02	1.1	0.00	1.5	0.00	2.1	0.03	1.2
A_23_P83192	NM_014172	PHPT1	phosphohistidine phosphatase 1	2.1	0.00	0.26	1.1	0.01	1.2	0.00	1.3	0.97	1.0	0.00	1.4	0.00	1.9	0.00	2.1	0.00	1.6
A_23_P93258	NM_003537	HIST1H3B	histone cluster 1, H3b	2.0	0.00	0.36	-1.2	0.00	-1.9	0.00	-2.0	0.99	1.0	0.09	-1.2	0.00	-1.7	0.00	-2.0	0.03	-1.4
A_19_P00317023				2.0	0.00	0.05	1.6	0.04	1.4	0.00	1.9	0.81	1.1	0.13	1.4	0.00	2.0	0.00	1.9	0.03	1.8
A_24_P390928	NM_024108	TRAPPC6A	trafficking protein particle complex 6A	2.0	0.00	0.83	-1.0	0.77	1.0	0.20	1.1	0.86	-1.0	0.00	1.3	0.00	1.7	0.00	2.0	0.00	1.4
A_23_P376488	NM_000594	TNF	tumor necrosis factor	2.0	0.00	0.93	1.0	0.00	-1.3	0.00	-2.0	0.85	1.0	0.15	1.1	0.20	1.1	0.00	1.3	0.26	1.1
A_23_P357546	NM_015488	PNKD	paroxysmal nonkinesigenic dyskinesia	2.0	0.00	0.36	1.1	0.04	1.1	0.03	1.1	0.85	-1.0	0.00	1.3	0.00	1.6	0.00	2.0	0.00	1.4
A_19_P00812120				2.0	0.00	0.74	1.1	0.00	1.4	0.00	2.0	0.87	1.1	0.07	1.3	0.00	1.6	0.00	1.6	0.04	1.4
A_33_P3241021	NR_026672	CD69	CD69 molecule	2.0	0.00	0.76	-1.0	0.00	-1.5	0.00	-2.0	0.82	1.0	0.00	1.3	0.00	1.6	0.00	1.9	0.01	1.3
A_19_P00322333				2.0	0.00	0.85	1.0	0.07	1.1	0.39	-1.0	0.84	-1.0	0.00	1.4	0.00	1.8	0.00	2.0	0.00	1.7
A_33_P3229725	NM_000487	ARSA	arylsulfatase A	2.0	0.00	0.79	1.0	0.37	1.1	0.09	1.1	0.97	1.0	0.00	1.3	0.00	1.9	0.00	2.0	0.00	1.6
A_33_P3351851	NM_003546	HIST1H4L	histone cluster 1, H4l	2.0	0.00	0.38	-1.1	0.00	-1.6	0.00	-1.6	0.99	-1.0	0.06	-1.2	0.00	-1.8	0.00	-2.0	0.00	-1.5
A_33_P3344086	NM_021066	HIST1H2AJ	histone cluster 1, H2aj	2.0	0.00	0.31	-1.2	0.00	-1.7	0.00	-2.0	0.96	1.0	0.12	-1.2	0.00	-1.6	0.00	-1.9	0.05	-1.3
A_23_P16976	NM_001153	ANXA4	annexin A4	2.0	0.00	0.67	1.0	0.06	1.1	0.00	1.1	0.95	1.0	0.00	1.3	0.00	1.8	0.00	2.0	0.00	1.6
A_23_P86653	NM_002727	SRGN	serglycin	2.0	0.00	0.96	1.0	0.63	-1.0	0.61	-1.0	0.80	1.1	0.10	1.1	0.00	1.5	0.00	2.0	0.25	1.1
A_24_P70888	NM_012401	PLXNB2	plexin B2	2.0	0.00	0.10	1.3	0.00	1.3	0.00	1.5	0.90	1.0	0.01	1.3	0.00	1.8	0.00	2.0	0.00	1.7
A_24_P217848	NM_003510	HIST1H2AK	histone cluster 1, H2ak	2.0	0.00	0.40	-1.1	0.00	-1.8	0.00	-2.0	0.98	1.0	0.11	-1.2	0.00	-1.6	0.00	-1.9	0.04	-1.4
A_33_P3403733	XM_001721533			2.0	0.01	0.99	-1.0	0.87	1.1	0.92	1.0	0.97	-1.0	0.99	1.0	0.01	2.0	0.90	-1.0	0.95	-1.0
A_19_P00322871				2.0	0.00	0.43	1.1	0.61	-1.0	0.80	1.0	0.96	1.0	0.01	1.2	0.00	1.8	0.00	2.0	0.00	1.7
A_23_P258018	NM_002477	MYL5	myosin, light chain 5, regulatory	2.0	0.00	0.95	1.0	0.25	1.1	0.39	1.0	0.96	-1.0	0.00	1.3	0.00	1.7	0.00	2.0	0.00	1.5
A_33_P3328360	NR_027033	MIRLET7BHG	MIRLET7B host gene (non-protein coding)	2.0	0.00	0.26	1.2	0.00	1.4	0.00	2.0	0.95	-1.0	0.81	-1.0	0.11	-1.1	0.34	-1.1	0.31	-1.1
A_33_P3236868	NM_005952	MT1X	metallothionein 1X	2.0	0.00	0.99	1.0	0.56	-1.2	0.00	2.0	1.00	-1.0	0.80	-1.1	0.40	-1.2	0.46	-1.2	0.89	-1.1
A_33_P3214501	NM_022767	AEN	apoptosis enhancing nuclease	2.0	0.00	0.19	1.3	0.00	1.8	0.00	2.0	0.86	1.1	0.36	1.2	0.05	1.3	0.00	1.6	0.02	1.6
A_23_P137381	NM_002167	ID3	inhibitor of DNA binding 3, dominant negative helix-loop-helix protein	2.0	0.00	0.87	1.0	0.00	1.1	0.00	1.2	0.94	-1.0	0.00	1.2	0.00	1.7	0.00	2.0	0.00	1.5
A_23_P385206	NM_177424	STX12	syntaxin 12	2.0	0.00	0.70	-1.0	0.42	-1.1	0.01	-1.2	0.95	1.0	0.02	1.2	0.00	1.6	0.00	2.0	0.00	1.3
A_19_P00316726				2.0	0.00	0.70	1.0	0.45	1.0	0.00	1.2	0.75	1.1	0.03	1.1	0.00	1.6	0.00	2.0	0.00	1.7
A_23_P25155	NM_020370	GPR84	G protein-coupled receptor 84	2.0	0.00	0.72	1.0	0.80	-1.0	0.44	-1.0	0.99	-1.0	0.00	1.3	0.00	1.5	0.00	2.0	0.00	1.3
A_33_P3400943	NM_001199054	C16orf5	chromosome 16 open reading frame 5	2.0	0.00	0.48	1.1	0.01	1.2	0.00	1.3	0.95	-1.0	0.00	1.3	0.00	1.6	0.00	2.0	0.00	1.7
A_33_P3287879	NM_003536	HIST1H3H	histone cluster 1, H3h	2.0	0.00	0.44	-1.1	0.00	-2.0	0.00	-2.0	1.00	1.0	0.15	-1.2	0.00	-1.7	0.00	-2.0	0.06	-1.4
A_23_P152002	NM_004049	BCL2A1	BCL2-related protein A1	2.0	0.00	0.98	1.0	0.01	-1.2	0.00	-1.3	0.86	1.0	0.00	1.3	0.00	1.4	0.00	2.0	0.67	1.1
A_33_P3258392	NM_001955	EDN1	endothelin 1	2.0	0.00	0.84	1.0	0.93	-1.0	0.98	-1.0	0.92	-1.0	0.00	1.2	0.00	1.6	0.00	2.0	0.12	1.1
A_23_P106922	NM_021615	CHST6	carbohydrate (N-acetylglucosamine 6-O) sulfotransferase 6	2.0	0.00	0.99	1.0	0.38	1.1	0.00	1.2	0.97	-1.0	0.08	1.1	0.00	1.6	0.00	2.0	0.00	2.0
A_23_P30799	NM_021018	HIST1H3F	histone cluster 1, H3f	2.0	0.00	0.49	-1.1	0.00	-2.0	0.00	-2.0	1.00	1.0	0.18	-1.2	0.00	-1.7	0.00	-1.9	0.05	-1.4
A_19_P00321594				2.0	0.00	0.33	1.1	0.00	1.3	0.00	1.7	0.90	-1.0	0.00	1.4	0.00	1.8	0.00	1.7	0.00	2.0
A_33_P3418170	NM_014314	DDX58	DEAD (Asp-Glu-Ala-Asp) box polypeptide 58	2.0	0.00	0.60	-1.1	0.22	-1.1	0.06	-1.1	0.93	1.0	0.05	1.2	0.00	1.5	0.00	2.0	0.03	1.3
A_33_P3219279	NM_032452	JPH4	junctophilin 4	2.0	0.00	0.56	1.1	0.47	1.1	0.31	1.1	0.99	1.0	0.00	1.3	0.00	1.6	0.00	2.0	0.00	1.5
A_33_P3341586	NM_001037633	SIL1	SIL1 homolog, endoplasmic reticulum chaperone (S. cerevisiae)	2.0	0.00	0.33	-1.1	0.00	-1.1	0.00	-1.4	0.73	-1.1	0.00	1.2	0.00	1.6	0.00	2.0	0.00	1.5
A_24_P89891	NM_005658	TRAF1	TNF receptor-associated factor 1	2.0	0.00	0.49	-1.1	0.00	-1.8	0.00	-1.5	0.79	1.1	0.08	1.2	0.00	1.5	0.00	2.0	0.97	1.0
A_23_P14165	NM_005292	GPR18	G protein-coupled receptor 18	2.0	0.00	0.36	-1.2	0.00	-1.6	0.00	-2.0	0.95	1.0	0.03	1.3	0.00	1.6	0.00	1.6	0.26	1.2
A_33_P3386467	NR_024530	RPL23AP7	ribosomal protein L23a pseudogene 7	2.0	0.00	0.19	1.1	0.04	1.1	0.24	1.1	0.94	-1.0	0.00	1.2	0.00	1.7	0.00	2.0	0.00	2.0
A_33_P3344127	NM_003512	HIST1H2AC	histone cluster 1, H2ac	2.0	0.00	0.45	-1.1	0.00	-1.8	0.00	-2.0	0.92	-1.0	0.09	-1.2	0.00	-1.7	0.00	-2.0	0.04	-1.4
A_23_P36345	NM_006645	STARD10	StAR-related lipid transfer (START) domain containing 10	2.0	0.00	0.48	1.1	0.08	1.1	0.13	1.1	0.80	-1.0	0.00	1.3	0.00	1.7	0.00	2.0	0.00	1.5
A_33_P3242820	NR_026927	LOC115110	hypothetical LOC115110	2.0	0.00	0.88	1.0	0.01	1.1	0.00	1.2	0.98	-1.0	0.00	1.4	0.00	1.9	0.00	2.0	0.00	1.7
A_33_P3302696	NM_003620	PPM1D	protein phosphatase, Mg2+/Mn2+ dependent, 1D	2.0	0.00	0.12	1.3	0.00	1.8	0.00	2.0	0.97	1.0	0.24	1.2	0.00	1.4	0.00	1.6	0.00	1.7
A_33_P3307500	NM_001142620	STRA6	stimulated by retinoic acid gene 6 homolog (mouse)	2.0	0.00	0.62	1.0	0.21	1.1	0.00	1.2	0.77	-1.0	0.00	1.3	0.00	1.7	0.00	2.0	0.00	1.8
A_33_P3278941	NM_001048205	REC8	REC8 homolog (yeast)	2.0	0.00	0.83	-1.0	0.16	1.0	0.12	1.0	0.91	1.0	0.00	1.2	0.00	1.6	0.00	2.0	0.00	1.3
A_33_P3422298				2.0	0.00	0.83	-1.0	0.75	1.0	0.60	-1.0	0.73	-1.1	0.00	-1.2	0.00	-1.7	0.00	-2.0	0.01	-1.3
A_23_P20225	NM_015713	RRM2B	ribonucleotide reductase M2 B (TP53 inducible)	2.0	0.00	0.56	1.1	0.21	1.1	0.00	1.4	0.76	1.1	0.08	1.2	0.00	1.6	0.00	2.0	0.00	1.7
A_24_P156501	NM_024007	EBF1	early B-cell factor 1	2.0	0.00	0.39	-1.1	0.00	-1.5	0.00	-2.0	0.94	-1.0	0.13	1.2	0.00	1.4	0.00	1.4	0.31	1.2
A_23_P218434	NM_001032374	ZNF226	zinc finger protein 226	2.0	0.00	0.57	-1.0	0.08	1.1	0.67	-1.0	0.73	-1.1	0.00	1.3	0.00	1.9	0.00	2.0	0.00	1.5
A_33_P3247022	NM_057749	CCNE2	cyclin E2	2.0	0.00	0.17	1.3	0.00	1.6	0.00	2.0	0.85	1.1	0.79	1.0	0.25	-1.1	0.22	-1.1	0.40	-1.2
A_23_P46039	NM_032738	FCRLA	Fc receptor-like A	2.0	0.00	0.78	-1.0	0.44	1.0	0.77	1.0	0.84	-1.0	0.00	1.5	0.00	2.0	0.00	2.0	0.00	1.8
A_23_P215198	NM_018264	TYW1	tRNA-yW synthesizing protein 1 homolog (S. cerevisiae)	2.0	0.00	0.36	-1.1	0.00	-1.5	0.00	-2.0	0.99	1.0	0.92	-1.0	0.92	-1.0	0.93	1.0	0.94	-1.0
A_24_P128312	NM_007135	ZNF79	zinc finger protein 79	2.0	0.00	0.25	1.2	0.00	1.4	0.00	1.7	0.94	-1.0	0.01	1.3	0.00	1.6	0.00	2.0	0.00	1.9
A_23_P214766	NM_006734	HIVEP2	human immunodeficiency virus type I enhancer binding protein 2	2.0	0.00	0.19	-1.2	0.00	-1.5	0.00	-2.0	0.94	-1.0	0.86	1.0	0.69	1.0	0.99	-1.0	0.88	-1.0
A_33_P3360216	NM_003509	HIST1H2AI	histone cluster 1, H2ai	2.0	0.00	0.34	-1.2	0.00	-1.7	0.00	-2.0	0.97	-1.0	0.08	-1.2	0.00	-1.8	0.00	-2.0	0.02	-1.4
A_23_P105794	NM_033255	EPSTI1	epithelial stromal interaction 1 (breast)	2.0	0.00	0.98	-1.0	0.52	-1.0	0.03	-1.1	0.95	-1.0	0.03	1.1	0.00	1.4	0.00	2.0	0.01	1.2
A_23_P7976	NM_005321	HIST1H1E	histone cluster 1, H1e	2.0	0.00	0.36	-1.2	0.00	-1.8	0.00	-2.0	1.00	-1.0	0.03	-1.3	0.00	-1.7	0.00	-1.9	0.05	-1.4

A_24_P324405	NM_013275	ANKRD11	ankyrin repeat domain 11	1.8	0.00	0.81	-1.0	0.00	-1.4	0.00	-1.8	0.85	1.1	0.08	-1.2	0.42	-1.1	0.41	-1.1	0.77	1.1
A_23_P201211	NM_031281	FCRL5	Fc receptor-like 5	1.8	0.00	0.97	-1.0	0.04	1.1	0.02	1.1	0.85	1.0	0.00	1.4	0.00	1.6	0.00	1.8	0.00	1.7
A_32_P34444	NM_025135	FHOD3	formin homology 2 domain containing 3	1.8	0.00	0.23	-1.2	0.00	-1.5	0.00	-1.8	1.00	1.0	0.29	1.1	0.07	1.2	0.01	1.2	0.38	1.1
A_23_P132057	NR_024027	NCRNA00158	non-protein coding RNA 158	1.8	0.00	0.72	-1.0	0.37	1.1	0.12	-1.1	0.87	1.0	0.00	1.2	0.00	1.4	0.00	1.8	0.03	1.2
A_24_P58620	NM_020716	GRAMD1B	GRAM domain containing 1B	1.8	0.00	0.33	-1.2	0.00	-1.4	0.00	-1.8	0.98	1.0	0.85	1.0	0.89	1.0	0.29	1.1	0.96	-1.0
A_24_P276576	NM_032738	FCRLA	Fc receptor-like A	1.8	0.00	0.78	1.0	0.31	1.1	0.28	-1.1	0.95	-1.0	0.00	1.4	0.00	1.8	0.00	1.8	0.00	1.6
A_19_P00317180				1.8	0.00	0.31	1.1	0.08	-1.1	0.04	-1.2	0.97	-1.0	0.01	1.2	0.00	1.6	0.00	1.8	0.00	1.7
A_23_P120902	NM_006498	LGALS2	lectin, galactoside-binding, soluble, 2	1.8	0.00	0.67	-1.0	0.82	1.0	0.60	-1.0	0.77	-1.0	0.00	1.2	0.00	1.4	0.00	1.8	0.00	1.4
A_23_P50276	NM_031917	ANGPTL6	angiopoietin-like 6	1.8	0.00	0.87	1.0	0.31	1.0	0.37	-1.0	0.82	-1.0	0.00	1.3	0.00	1.6	0.00	1.8	0.00	1.4
A_23_P386478	NM_024873	TNIP3	TNFAIP3 interacting protein 3	1.8	0.00	0.88	1.0	0.66	-1.0	0.02	-1.1	0.89	1.0	0.00	1.3	0.00	1.3	0.00	1.8	0.03	1.2
A_33_P3407479				1.8	0.00	0.41	-1.1	0.63	-1.0	0.88	-1.0	0.82	-1.0	0.17	1.1	0.00	1.5	0.00	1.8	0.01	1.3
A_33_P3237634	NM_004089	TSC22D3	TSC22 domain family, member 3	1.8	0.00	0.13	-1.2	0.00	-1.5	0.00	-1.8	0.71	1.2	0.22	1.1	0.00	1.5	0.00	1.5	0.00	1.7
A_19_P00321143				1.8	0.00	0.45	1.1	0.00	1.5	0.00	1.8	0.96	1.0	0.80	1.0	0.26	1.1	0.21	1.1	0.10	1.3
A_33_P3266828	NM_016446	TMEM8B	transmembrane protein 8B	1.8	0.00	0.58	1.0	0.10	1.1	0.03	1.1	0.82	-1.0	0.00	1.3	0.00	1.8	0.00	1.8	0.00	1.5
A_23_P166459	NM_002305	LGALS1	lectin, galactoside-binding, soluble, 1	1.8	0.00	0.89	-1.0	0.84	1.0	0.16	1.0	0.87	-1.0	0.00	1.2	0.00	1.5	0.00	1.8	0.01	1.1
A_23_P131866	NM_198433	AURKA	aurora kinase A	1.8	0.00	0.27	-1.2	0.00	-1.6	0.00	-1.8	0.92	-1.0	0.53	-1.1	0.48	-1.1	0.16	-1.2	0.85	1.0
A_23_P164436	NM_000049	ASPA	aspartoacylase	1.8	0.00	0.78	1.0	0.87	-1.0	0.17	1.1	0.99	1.0	0.39	1.1	0.00	1.4	0.00	1.8	0.00	1.4
A_33_P3363271	NM_000724	CACNB2	calcium channel, voltage-dependent, beta 2 subunit	1.8	0.00	0.64	-1.1	0.00	-1.6	0.00	-1.8	0.85	1.1	0.80	-1.0	0.96	-1.0	0.99	-1.0	0.79	1.1
A_33_P3269806	NM_178523	ZNF616	zinc finger protein 616	1.8	0.04	0.68	1.2	0.52	1.2	0.63	1.1	0.79	1.2	0.04	1.8	0.85	1.1	0.86	1.1	0.76	1.1
A_32_P151800	NM_207418	FAM72D	family with sequence similarity 72, member D	1.8	0.00	0.20	-1.2	0.00	-1.5	0.00	-1.8	0.99	-1.0	0.30	-1.2	0.08	-1.2	0.01	-1.3	0.47	-1.1
A_24_P296508	NM_152346	SLC43A2	solute carrier family 43, member 2	1.8	0.00	0.39	-1.1	0.35	-1.1	0.57	1.0	0.77	-1.1	0.16	1.1	0.00	1.4	0.00	1.8	0.59	1.1
A_33_P3237674				1.8	0.00	0.59	1.0	0.00	1.2	0.02	1.1	0.86	-1.0	0.00	1.3	0.00	1.6	0.00	1.8	0.00	1.6
A_23_P32404	NM_002201	ISG20	interferon stimulated exonuclease gene 20kDa	1.8	0.00	0.47	-1.1	0.73	1.0	0.20	-1.1	0.82	-1.0	0.87	-1.0	0.00	1.2	0.00	1.8	0.95	-1.0
A_19_P00321990				1.8	0.00	0.58	-1.1	0.00	-1.8	0.00	-1.6	0.75	1.2	0.93	-1.0	0.98	-1.0	0.76	-1.0	0.66	1.1
A_33_P3412900	NM_001039771	CBLN3	cerebellin 3 precursor	1.8	0.00	0.91	1.0	0.85	-1.0	0.01	1.2	0.92	-1.0	0.00	1.3	0.00	1.6	0.00	1.8	0.01	1.3
A_23_P156748	NM_015245	ANKS1A	ankyrin repeat and sterile alpha motif domain containing 1A	1.8	0.00	0.38	-1.1	0.00	-1.6	0.00	-1.8	1.00	1.0	0.77	1.0	0.84	1.0	0.99	1.0	0.56	-1.1
A_33_P3311755	NM_138555	KIF23	kinesin family member 23	1.8	0.00	0.39	-1.2	0.00	-1.6	0.00	-1.8	0.93	-1.0	0.38	-1.1	0.16	-1.2	0.01	-1.3	0.71	-1.1
A_33_P3645465	NR_026932	LOC282997	hypothetical LOC282997	1.8	0.00	0.88	-1.0	0.10	1.1	0.01	1.1	0.87	-1.0	0.00	1.2	0.00	1.7	0.00	1.8	0.00	1.5
A_23_P7342	NM_001075	UGT2B10	UDP glucuronosyltransferase 2 family, polypeptide B10	1.8	0.00	0.65	-1.0	0.12	1.1	0.31	1.1	0.90	-1.0	0.00	1.4	0.00	1.7	0.00	1.8	0.00	1.6
A_33_P3531979		LOC283352	hypothetical protein LOC283352	1.8	0.00	0.86	1.0	0.14	1.1	0.00	1.1	0.81	-1.0	0.00	1.2	0.00	1.5	0.00	1.8	0.00	1.3
A_24_P370156	NM_000528	MAN2B1	mannosidase, alpha, class 2B, member 1	1.8	0.00	0.46	1.1	0.95	-1.0	0.10	1.1	0.87	-1.0	0.00	1.3	0.00	1.6	0.00	1.8	0.00	1.3
A_33_P3286278	NM_002087	GRN	granulin	1.8	0.00	0.98	-1.0	0.85	1.0	0.01	1.1	0.84	-1.0	0.00	1.2	0.00	1.8	0.00	1.8	0.00	1.4
A_33_P3405743	NM_001130042	CRYZ	crystallin, zeta (quinone reductase)	1.8	0.00	0.87	1.0	0.29	1.0	0.66	1.0	0.90	1.0	0.00	1.2	0.00	1.4	0.00	1.8	0.18	1.1
A_19_P00801079				1.8	0.00	0.30	-1.1	0.00	-1.2	0.00	1.2	0.79	1.0	0.00	1.2	0.00	1.6	0.00	1.8	0.00	1.5
A_19_P00316599				1.8	0.00	0.59	1.1	0.12	1.3	0.00	1.8	0.75	1.2	0.63	1.1	0.09	1.3	0.58	1.1	0.57	1.2
A_23_P210048	NM_006037	HDAC4	histone deacetylase 4	1.8	0.00	0.24	-1.1	0.00	-1.4	0.00	-1.8	0.98	-1.0	0.54	-1.1	0.18	-1.1	0.01	-1.2	0.65	-1.1
A_23_P21548	NM_024605	ARHGAP10	Rho GTPase activating protein 10	1.8	0.00	0.50	-1.1	0.00	-1.5	0.00	-1.8	0.99	1.0	0.62	1.1	0.19	1.1	0.04	1.2	0.51	1.1
A_24_P340128	NM_178129	P2RY8	purinergic receptor P2Y, G-protein coupled, 8	1.8	0.00	0.34	-1.1	0.08	-1.1	0.08	-1.1	0.74	-1.1	0.00	1.3	0.00	1.8	0.00	1.8	0.00	1.4
A_24_P396375	NM_001113347	ECE1	endothelin converting enzyme 1	1.8	0.00	0.84	-1.0	0.01	-1.2	0.00	-1.3	0.95	-1.0	0.00	1.2	0.00	1.5	0.00	1.8	0.00	1.3
A_19_P00804777				1.8	0.00	0.50	-1.1	0.00	-1.8	0.00	-1.7	0.75	1.2	0.98	1.0	0.94	1.0	0.98	1.0	0.78	1.1
A_33_P3395675				1.8	0.00	0.77	1.0	0.85	1.0	0.48	-1.0	0.98	-1.0	0.03	-1.2	0.00	-1.7	0.00	-1.8	0.03	-1.2
A_33_P3389153	NM_005990	STK10	serine/threonine kinase 10	1.8	0.00	0.70	-1.0	0.01	-1.1	0.00	-1.3	0.85	1.0	0.00	1.2	0.00	1.7	0.00	1.8	0.00	1.5
A_23_P24389	NM_032251	CCDC88B	coiled-coil domain containing 88B	1.8	0.00	0.67	1.0	0.71	1.0	0.69	1.0	0.82	-1.0	0.00	1.4	0.00	1.6	0.00	1.8	0.00	1.4
A_19_P00810083				1.8	0.00	0.68	-1.0	0.35	-1.1	0.61	1.0	0.77	-1.1	0.07	1.2	0.00	1.5	0.00	1.8	0.00	1.4
A_23_P43846	NM_001040442	FABP6	fatty acid binding protein 6, ileal	1.8	0.00	0.89	1.0	0.01	1.1	0.00	1.1	0.89	-1.0	0.00	1.2	0.00	1.5	0.00	1.8	0.00	1.2
A_23_P64173	NM_001017534	CARD16	caspase recruitment domain family, member 16	1.8	0.00	0.89	-1.0	0.54	1.0	0.07	1.1	0.77	-1.1	0.00	1.3	0.00	1.6	0.00	1.8	0.00	1.3
A_23_P33894	NM_201222	MAGED2	melanoma antigen family D, 2	1.8	0.00	0.65	1.0	0.17	1.1	0.01	1.1	0.88	-1.0	0.00	1.3	0.00	1.6	0.00	1.8	0.00	1.4
A_33_P3347413	NM_020524	PBXIP1	pre-B-cell leukemia homeobox interacting protein 1	1.8	0.00	0.69	-1.0	0.18	1.1	0.21	1.1	0.87	-1.0	0.05	1.1	0.00	1.6	0.00	1.8	0.00	1.4
A_23_P145	NM_000191	HMGCL	3-hydroxymethyl-3-methylglutaryl-CoA lyase	1.8	0.00	0.66	-1.0	0.74	1.0	0.22	1.0	0.71	-1.1	0.00	1.3	0.00	1.8	0.00	1.8	0.00	1.6
A_23_P129188	NM_033429	CALML4	calmodulin-like 4	1.8	0.00	0.43	1.1	0.03	1.2	0.00	1.3	0.74	1.1	0.02	-1.2	0.00	-1.5	0.00	-1.8	0.01	-1.3
A_33_P3397763	NM_003811	TNFSF9	tumor necrosis factor (ligand) superfamily, member 9	1.8	0.00	0.16	1.2	0.00	1.2	0.00	1.7	0.77	1.1	0.01	1.3	0.00	1.6	0.00	1.8	0.00	1.7
A_33_P3384562	NM_213636	PDLIM7	PDZ and LIM domain 7 (enigma)	1.8	0.00	0.82	1.0	0.21	1.0	0.00	1.2	0.99	1.0	0.00	1.2	0.00	1.8	0.00	1.7	0.00	1.3
A_24_P6517	NM_001029884	PLEKHG1	pleckstrin homology domain containing, family G (with RhoGef domai	1.8	0.00	0.69	-1.1	0.00	-1.7	0.00	-1.8	0.87	1.1	0.08	1.2	0.00	1.3	0.00	1.6	0.41	1.1
A_19_P00317436				1.8	0.00	0.89	1.0	0.03	1.3	0.00	1.8	0.89	1.1	0.26	1.2	0.00	1.5	0.00	1.4	0.07	1.4
A_19_P00319467				1.8	0.00	0.87	-1.0	0.00	-1.8	0.00	-1.7	0.73	1.3	0.86	1.0	0.10	1.3	0.08	1.3	0.45	1.2
A_23_P119478	NM_005755	EBI3	Epstein-Barr virus induced 3	1.8	0.00	0.92	1.0	0.51	1.0	0.18	1.0	0.77	-1.0	0.00	1.2	0.00	1.4	0.00	1.8	0.02	1.1
A_23_P343366	NM_152367	MAB21L3	mab-21-like 3 (C. elegans)	1.8	0.00	0.26	-1.1	0.00	-1.3	0.00	-1.3	1.00	-1.0	0.01	1.2	0.00	1.5	0.00	1.8	0.00	1.5
A_24_P69095	NM_003633	ENC1	ectodermal-neural cortex 1 (with BTB-like domain)	1.8	0.00	0.25	1.3	0.01	1.4	0.02	1.4	0.85	1.1	0.53	1.1	0.00	1.6	0.00	1.6	0.01	1.8
A_24_P397150	NM_005255	GAK	cyclin G associated kinase	1.8	0.00	0.50	1.1	0.28	-1.1	0.04	-1.1	0.93	-1.0	0.00	1.2	0.00	1.5	0.00	1.8	0.00	1.3
A_23_P422851	NM_138375	CABLES1	Cdk5 and Abl enzyme substrate 1	1.8	0.00	0.20	-1.2	0.00	-1.3	0.00	-1.8	0.99	1.0	0.27	-1.1	0.01	-1.2	0.00	-1.3	0.90	-1.0
A_23_P200325	NM_014857	RABGAP1L	RAB GTPase activating protein 1-like	1.8	0.00	0.20	-1.1	0.00	-1.2	0.00	-1.4	0.93	1.0	0.03	1.2	0.00	1.5	0.00	1.8	0.01	1.3
A_19_P00322422				1.8	0.00	0.90	1.0	0.46	1.1	0.20	1.1	0.92	1.0	0.06	1.3	0.00	1.6	0.00	1.8	0.00	1.6
A_24_P320033	NM_005191	CD80	CD80 molecule	1.8	0.00	0.98	1.0	0.17	-1.1	0.02	1.1	0.93	1.0	0.00	1.2	0.00	1.3	0.00	1.8	0.10	1.1
A_23_P148047	NM_000958	PTGER4	prostaglandin E receptor 4 (subtype EP4)	1.8	0.00	0.24	-1.2	0.00	-1.5	0.00	-1.4	0.74	1.1	0.00	1.3	0.00	1.3	0.00	1.8	0.79	1.0
A_23_P164773	NM_002002	FCER2	Fc fragment of IgE, low affinity II, receptor for (CD23)	1.8	0.00	0.69	1.0	0.98	1.0	0.81	-1.0	0.97	1.0	0.00	1.2	0.00	1.5	0.00	1.8	0.02	1.1
A_23_P384044	NM_152495	CNIH3	cornichon homolog 3 (Drosophila)	1.8	0.00	0.64	-1.1	0.15	-1.1	0.00	-1.3	0.90	1.0	0.08	1.2	0.00	1.3	0.00	1.8	0.31	1.1
A_19_P00316993				1.8	0.00	0.72	-1.1	0.00	-1.8	0.00	-1.6	0.71	1.3	0.99	-1.0	0.83	-1.0	0.64	-1.1	0.54	1.1
A_32_P524014	NM_007124	UTRN	utrophin	1.8	0.00	0.45	-1.1	0.00	-1.2	0.00	-1.4	0.80	1.1	0.01	1.2	0.00	1.7	0.00	1.8	0.00	1.7
A_33_P3219090	NM_005542	INSIG1	insulin induced gene 1	1.8	0.00	0.79	1.0	0.02	1.2	0.00	1.8	0.89	1.0	0.89	-1.0	0.69	-1.0	0.29	1.1	0.92	-1.0
A_23_P167017	NM_022135	POPDC2	popeye domain containing 2	1.8	0.00	0.95	1.0	0.02	1.3	0.00	1.5	0.99	1.0	0.33	1.1	0.00	1.4	0.00	1.8	0.04	1.4
A_23_P39602	NM_147233	NCOA1	nuclear receptor coactivator 1	1.8	0.00	0.40	-1.1	0.00	-1.5	0.00	-1.8	0.87	1.1	0.50	1.1	0.14	1.2	0.06	1.2	0.82	1.0
A_23_P99163	NM_018370	DRAM1	DNA-damage regulated autophagy modulator 1	1.8	0.00	0.19	1.2	0.02	1.3	0.00	1.3	0.92	-1.0	0.04	1.3	0.00	1.6	0.00	1.8	0.00	1.5
A_33_P3417472				1.8	0.00	0.84	-1.0	0.20	1.1	0.00	1.3	1.00	-1.0	0.62	1.1	0.00	1.5	0.00	1.8	0.01	1.4
A_19_P00800555				1.8	0.00	0.51	-1.2	0.00	-1.8	0.00	-1.8	0.74	1.2	0.95	1.0	0.94	1.0	0.79	-1.0	0.62	1.1
A_23_P321201	NM_015213	DENND5A	DENN/MADD domain containing 5A	1.8	0.00	0.71	-1.0	0.02	-1.2	0.00	-1.3	0.94	-1.0	0.03	1.2	0.00	1.5	0.00	1.8	0.11	1.2
A_23_P14774	NM_004390	CTSH	cathepsin H	1.8	0.00	0.83	-1.0	0.96	1.0	0.86	1.0	0.89	-1.0	0.00	1.3	0.00	1.6	0.00	1.8	0.00	1.2
A_33_P3228023	NM_021626	SCPEP1	serine carboxypeptidase 1	1.8	0.00	0.43	1.1	0.02	1.1	0.00	1.5	0.84	1.0	0.03	1.2	0.00	1.5	0.00	1.8	0.00	1.4
A_24_P218265	NM_003842	TNFRSF10B	tumor necrosis factor receptor superfamily, member 10b	1.8	0.00	0.33	1.1	0.01	1.2	0.00	1.3	0.96	1.0	0.01	1.3	0.00	1.6	0.00	1.8	0.00	1.5
A_33_P3258346	NM_017523	XAF1	XIAP associated factor 1	1.8	0.00	0.50	1.1	0.91	-1.0	0.97	-1.0	0.95	1.0	0.84	1.0	0.00	1.3	0.00	1.8	0.37	1.1
A_33_P3374723	NM_001128128	ZEB1	zinc finger E-box binding homeobox 1	1.8	0.00	0.38	-1.1	0.00	-1.5	0.00	-1.8	0.75	1.1	0.92	1.0	1.00	-1.0	0.58	1.0	0.79	1.0
A_32_P56249	NR_038996	LOC100131733	hypothetical LOC100131733	1.8	0.00	0.66	1.0	0.01	1.1	0.01	1.1	0.73	-1.1	0.01	1.2	0.00	1.5	0.00	1.8	0.00	1.4
A_23_P74449	NM_032756	HPDL	4-hydroxyphenylpyruvate dioxygenase-like	1.8	0.00	0.52	1.1	0.00	1.5	0.00	1.3	0.82	-1.1	0.38	-1.1	0.00	-1.4	0.00	-1.8	0.01	-1.4
A_32_P109922	NM_020863	ZFAT	zinc finger and AT hook domain containing	1.8	0.00	0.23	-1.2	0.00	-1.4	0.00	-1.8	0.97	-1.0	0.99	-1.0	0.75	1.0	0.98	1.0	0.86	1.0
A_19_P00804228				1.8	0.00	0.59	-1.1	0.00	-1.5	0.00	-1.8	0.91	1.0	0.50	1.1	0.05	1.2	0.00	1.2	0.12	1.2
A_23_P98910	NM_006152	LRMP	lymphoid-restricted membrane protein	1.8	0.00	0.73	1.0	0.18	1.0	0.00	1.1	0.95	1.0	0.00	1.4	0.00	1.7	0.00	1.8	0.00	1.6
A_23_P139919	NM_018413	CHST11	carbohydrate (chondroitin 4) sulfotransferase 11	1.8	0.00	0.29	-1.2	0.00	-1.5	0.00	-1.8	0.94	-1.0	0.77	-1.0	0.74	-1.0	0.82	-1.0	0.83	-1.0
A_24_P944444	NM_014994	MAPKBP1	mitogen-activated protein kinase binding protein 1	1.8	0.00	0.94	-1.0	0.05	-1.1	0.56	-1.0	0.83	-1.0	0.04	1.1	0.00	1.4	0.00	1.8	0.01	1.2
A_23_P131825	NM_003279	TNNC2	troponin C type 2 (fast)	1.8	0.00	0.61	1.1	0.00	1.3	0.28	1.1	0.83	1.1	0.08	1.2	0.00	1.8	0.00	1.6	0.02	1.4
A_23_P154306	NM_004180	TANK	TRAF family member-associated NFKB activator	1.8	0.00	0.98	-1.0	0.01	-1.1	0.00	-1.2	0.74	1.1	0.10	1.1	0.00	1.5	0.00	1.8	0.00	1.2
A_23_P61371	NM_198282	TMEM173	transmembrane protein 173	1.8	0.00	0.86	-1.0	0.37	1.0	0.18	1.0	0.78	-1.0	0.01	1.1	0.00	1.5	0.00	1.8	0.00	1.5
A_19_P00320729				1.8	0.00	0.57	-1.1	0.00	-1.4	0.00	-1.8	0.98	1.0	0.47	1.1	0.04	1.2	0.00	1.3	0.22	1.2
A_23_P69908	NM_002064	GLRX	glutaredoxin (thioltransferase)	1.8	0.00	0.52	1.0	0.01	1.1	0.00	1.2	0.94	-1.0	0.00	1.3	0.00	1.7	0.00	1.8	0.00	1.4
A_33_P3224803	NM_000265	NCF1	neutrophil cytosolic factor 1	1.8	0.00	0.89	1.0	0.33	1.0	0.91	1.0	0.81	-1.0	0.00	1.3	0.00	1.5	0.00	1.8	0.00	1.3
A_19_P00324365				1.8	0.00	0.68	-1.1	0.00	-1.8	0.00	-1.7	0.74	1.1	0.85	1.0	0.44	1.1	0.61	1.1	0.93	1.0
A_23_P372874	NM_001024210	S100A13	S100 calcium binding protein A13	1.8	0.00	0.80	-1.0	0.58	1.0	0.00	1.2	0.93	1.0	0.00	1.2	0.00	1.6	0.00	1.8	0.00	1.7
A_33_P3224800				1.8	0.00	0.94	-1.0	0.32	1.0	0.30	1.0	0.92	-1.0	0.00	1.2	0.00	1.5	0.00	1.8	0.00	1.3
A_33_P3228325	NM_001080391	SP100	SP100 nuclear antigen	1.8	0.00	0.64	-1.1	0.50	-1.1	0.03	-1.1	0.91	1.0	0.48	1.1	0.00	1.6	0.00	1.8	0.00	1.4
A_23_P171336	NM_022052	NXF3	nuclear RNA export factor 3	1.8	0.00	0.89	1.0	0.69	1.0	0.01	1.1	0.87	-1.0	0.00	1.3	0.00	1.6	0.00	1.8	0.00	1.4
A_23_P132438	NM_018133	MSL2	male-specific lethal 2 homolog (Drosophila)	1.8	0.01	0.76	-1.1	0.01	-1.8	1.00	1.0	0.93	1.1	0.76	-1.1	0.62	-1.1	0.47	-1.2	0.77	-1.1
A_23_P76882	NM_182851	CCNB1IP1	cyclin B1 interacting protein 1, E3 ubiquitin protein ligase	1.8	0.02	0.79	-1.1	0.02	-1.8	0.54	1.2	0.99	1.0	0.97	1.0	0.75	1.1	0.48	1.2	0.61	1.2
A_23_P26325	NM_002987	CCL17	chemokine (C-C motif) ligand 17	1.8	0.00	0.85	-1.0	0.41	1.1	0.93	1.0	0.97	1.0	0.02	1.2	0.00	1.3	0.00	1.8	0.07	1.2
A_33_P3405424	NM_172374	IL4I1	interleukin 4 induced 1	1.8	0.00	0.50	-1.1	0.00	-1.3	0.00	-1.4	0.99	1.0	0.08	1.2	0.00	1.4	0.00	1.8	0.09	1.2
A_32_P163125	NM_147156	SGMS1	sphingomyelin synthase 1	1.8	0.00	0.64	1.1	0.00	-1.3	0.00	-1.8	0.97	1.0	0.84	-1.0	0.50	-1.1	0.27	-1.1	0.85	1.0
A_23_P107173	NM_004527	MEOX1	mesenchyme homeobox 1	1.8	0.00	0.56	-1.0	0.37	1.0	0.04	-1.1	0.75	-1.1	0.00	1.3	0.00	1.8	0.00	1.7	0.00	1.4
A_23_P118633	NM_022827	SPATA20	spermatogenesis associated 20	1.8	0.00	0.65	1.0	0.30	1.1	0.01	1.1	0.92	-1.0	0.00	1.3	0.00	1.6	0.00	1.8	0.00	1.4
A_23_P157117	NM_182898	CREB5	cAMP responsive element binding protein 5	1.8	0.00	0.13	-1.2	0.00	-1.5	0.00	-1.8	0.92	-1.0	0.18	1.1	0.00	1.3	0.00	1.5	0.42	1.1
A_24_P53778	NM_080878	ITLN2	intelectin 2	1.8	0.00	0.56	1.1	0.53	1.0	0.02	1.1	0.89	-1.0	0.12	1.1	0.00	1.5	0.00	1.8	0.00	1.8
A_33_P3290443	NR_002569	SCARNA9	small Cajal body-specific RNA 9	1.8	0.00	0.82	1.0	0.25	-1.1	0.55	-1.0	0.90	1.0	0.06	1.1	0.00	1.5	0.00	1.8	0.00	1.4
A_23_P88691	NM_000745	CHRNA5	cholinergic receptor, nicotinic, alpha 5	1.8	0.00	0.25	1.1	0.01	1.1	0.00	1.2	0.96	1.0	0.00	-1.2	0.00	-1.6	0.00	-1.8	0.00	-1.4
A_23_P112201	NM_015061	KDM4C	lysine (K)-specific demethylase 4C	1.8	0.00	0.30	-1.2	0.00	-1.5	0.00	-1.8	0.87	1.0	0.90	1.0	0.08	1.2	0.00	1.3	0.53	1.1
A_19_P00325768				1.8	0.00	0.26	1.1	0.00	1.2	0.00	1.3	0.87	-1.0	0.00	1.3	0.00	1.6	0.00	1.8	0.00	1.4
A_23_P86599	NM_007329	DMBT1	deleted in malignant brain tumors 1	1.8	0.00	0.59	-1.1	0.00	-1.8	0.00	-1.6	0.99	-1.0	0.73	1.1	0.43	1.1	0.93	1.0	0.23	1.3
A_19_P00809368				1.8	0.00	0.84	-1.0	0.77	-1.0	0.01	-1.1	0.93	-1.0	0.01	1.2	0.00	1.5	0.00	1.8	0.01	1.2
A_23_P47704	NM_003355	UCP2	uncoupling protein 2 (mitochondrial, proton carrier)	1.8	0.00	0.68	1.0	0.48	1.0	0.45	1.0	0.80	-1.0	0.00	1.2	0.00	1.6	0.00	1.8	0.01	1.2
A_23_P160297	NM_032884	C1orf94	chromosome 1 open reading frame 94	1.8	0.00	0.52	-1.1	0.35	1.0	0.01	-1.1	0.98	-1.0	0.00	1.3	0.00	1.8	0.00	1.8	0.00	1.6
A_33_P3227788	NM_148977	PANK1	pantothenate kinase 1	1.8	0.00	0.49	1.2	0.97	-1.0	0.00	1.8	0.84	1.1	0.87	1.0	0.67	1.1	0.33	1.2	0.25	1.3
A_33_P3242609	NM_001001670	FAM75D1	family with sequence similarity 75, member D1	1.8	0.00	0.92	-1.0	0.15	-1.1	0.51	1.0	0.94	1.0	0.15	1.1	0.00	1.4	0.00	1.8	0.52	-1.1
A_23_P340722	NM_007235	XPOT	exportin, tRNA (nuclear export receptor for tRNAs)	1.8	0.00	0.73	1.0	0.48	1.1	0.04	-1.1	0.73	1.1	0.00	-1.3	0.00	-1.6	0.00	-1.8	0.00	-1.4
A_33_P3315949	NM_213607	CCDC103	coiled-coil domain containing 103	1.8	0.00	0.82	-1.0	0.77	-1.0	0.68	-1.0	0.92	-1.0	0.00	1.2	0.00	1.4	0.00	1.8	0.30	1.1
A_23_P215419	NM_004968	ICA1	islet cell autoantigen 1, 69kDa	1.8	0.00	0.85	1.0	0.59	1.0	0.25	1.1	0.83	-1.0	0.00	1.2	0.00	1.4	0.00	1.8	0.02	1.2
A_33_P3210986	NM_001145441	TYW1B	tRNA-yW synthesizing protein 1 homolog B (S. cerevisiae)	1.8	0.00	0.39	-1.1	0.00	-1.4	0.00	-1.8	0.95	-1.0	0.89	-1.0	0.29	-1.1	0.54	-1.0	0.34	-1.1
A_23_P317056		ND6	NADH dehydrogenase, subunit 6 (complex I)	1.8	0.00	0.28	-1.3	0.00	-1.6	0.00	-1.8	0.77	1.2	0.47	-1.1	0.05	-1.3	0.00	-1.6	0.66	1.1
A_24_P303091	NM_001565	CXCL10	chemokine (C-X-C motif) ligand 10	1.8	0.00	0.70	-1.0	0.88	-1.0	0.82	1.0	0.82	-1.1	0.07	-1.2	0.00	-1.8	0.00	-1.4	0.00	-1.5
A_33_P3344618	NM_007162	TFEB	transcription factor EB	1.8	0.00	0.22	-1.2	0.02	-1.2	0.00	-1.5	0.94	-1.0	0.07	1.2	0.00	1.5	0.00	1.8	0.16	1.2
A_19_P00801165				1.8	0.00	0.88	1.0	0.20	1.1	0.00	1.3	0.79	-1.1	0.01	1.2	0.00	1.7	0.00	1.8	0.00	1.7
A_24_P481375	NR_034089	LOC100131564	hypothetical LOC100131564	1.8	0.00	0.99	1.0	0.10	1.1	0.00	1.3	0.97	-1.0	0.02	1.2	0.00	1.6	0.00	1.8	0.01	1.4
A_23_P104471	NM_001007271	DUSP13	dual specificity phosphatase 13	1.8	0.00	0.77	1.0	0.83	1.0	0.37	1.0	0.92	1.0	0.08	1.1	0.00	1.6	0.00	1.8	0.00	1.5
A_24_P157926	NM_006290	TNFAIP3	tumor necrosis factor, alpha-induced protein 3	1.8	0.00	0.66	-1.0	0.00	-1.3	0.00	-1.2	0.87	1.0	0.00	1.2	0.00	1.4	0.00	1.8	0.04	1.2
A_23_P76136	NM_001080509	TSPAN11	tetraspanin 11	1.8	0.00	0.58	1.1	0.54	1.0	0.85	1.0	0.95	-1.0	0.17	1.1	0.00	1.2	0.00	1.8	0.22	1.1
A_32_P66020	NM_032167	RUNDC2A	RUN domain containing 2A	1.8	0.00	0.22	-1.2	0.00	-1.4	0.00	-1.6	0.86	1.1	0.35	1.1	0.00	1.5	0.00	1.8	0.00	1.6
A_23_P212655	NM_130446	KLHL6	kelch-like 6 (Drosophila)	1.8	0.00	0.88	-1.0	0.06	-1.1	0.01	-1.2	0.77	1.1	0.11	1.1	0.00	1.5	0.00	1.8	0.00	1.4
A_23_P160318	NM_001856	COL16A1	collagen, type XVI, alpha 1	1.8	0.00	0.92	1.0	0.38	1.0	0.75	1.0	0.93	-1.0	0.00	1.2	0.00	1.5	0.00	1.8	0.00	1.4
A_23_P46539	NM_032636	PSRC1	proline/serine-rich coiled-coil 1	1.8	0.00	0.34	-1.2	0.00	-1.6	0.00	-1.8	0.87	-1.1	0.92	1.0	0.18	1.2	0.47	-1.1	0.97	1.0
A_23_P420417	NM_138463	TLCD1	TLC domain containing 1	1.8	0.00	0.96	1.0	0.11	1.2	0.00	1.8	0.96	-1.0	0.93	-1.0	0.34	-1.1	0.28	-1.1	0.84	-1.0
A_23_P59005	NM_000593	TAP1	transporter 1, ATP-binding cassette, sub-family B (MDR/TAP)	1.8	0.00	0.45	1.1	0.00	1.2	0.00	1.4	0.82	-1.0	0.00	1.2	0.00	1.4	0.00	1.8	0.00	1.3
A_23_P90130	NM_004851	NAPSA	napsin A aspartic peptidase	1.8	0.00	0.76	-1.0	0.72	1.0	0.63	-1.0	0.84	-1.0	0.00	1.3	0.00	1.7	0.00	1.8	0.00	1.5
A_33_P3676515	NR_027292	C21orf122	chromosome 21 open reading frame 122	1.8	0.00	0.72	1.0	0.87	1.0	0.28	1.1	0.85	-1.0	0.00	1.2	0.00	1.6	0.00	1.8	0.00	1.4
A_33_P3226377	NM_005042	PRH2	proline-rich protein HaeIII subfamily 2	1.8	0.00	0.50	-1.1	0.00	-1.6	0.00	-1.8	0.84	1.1	0.90	1.0	0.78	-1.0	0.90	1.0	0.98	-1.0
A_23_P321703	NM_004049	BCL2A1	BCL2-related protein A1	1.8	0.00	0.93	-1.0	0.17	-1.1	0.10	-1.1	0.87	1.0	0.01	1.2	0.00	1.4	0.00	1.8	0.03	1.2
A_33_P3244610	NM_178460	SIRPD	signal-regulatory protein delta	1.8	0.00	0.89	1.0	0.02	1.1	0.16	1.1	0.99	-1.0	0.04	-1.1	0.00	-1.3	0.00	-1.8	0.00	-1.3
A_33_P3222203	NM_148962	OXER1	oxoeicosanoid (OXE) receptor 1	1.8	0.00	0.34	1.1	0.00	1.2	0.00	1.4	0.98	-1.0	0.00	1.3	0.00	1.6	0.00	1.5	0.00	1.8
A_23_P45389	NM_004251	RAB9A	RAB9A, member RAS oncogene family	1.8	0.00	0.40	-1.1	0.00	-1.6	0.00	-1.8	0.80	1.1	0.48	1.1	0.08	1.2	0.00	1.3	0.90	1.0
A_23_P106906	NM_002705	PPL	periplakin	1.8	0.00	0.96	-1.0	0.87	-1.0	0.66	1.0	0.95	-1.0	0.46	1.1	0.00	1.4	0.00	1.7	0.00	1.8
A_23_P27515	NM_012268	PLD3	phospholipase D family, member 3	1.8	0.00	0.68	1.0	0.27	1.1	0.12	1.1	0.91	-1.0	0.00	1.3	0.00	1.7	0.00	1.8	0.00	1.5
A_23_P390068	NM_173481	C19orf21	chromosome 19 open reading frame 21	1.8	0.00	0.99	1.0	0.99	-1.0	0.64	1.1	0.96	1.0	0.63	1.1	0.01	1.3	0.00	1.8	0.59	1.1
A_33_P3666884	NM_001098537	PNPLA7	patatin-like phospholipase domain containing 7	1.8	0.00	0.82	1.0	0.02	-1.2	0.84	-1.0	0.74	1.1	0.25	1.1	0.00	1.3	0.00	1.8	0.00	1.4
A_23_P406227	NR_024399	MGC23284	hypothetical LOC197187	1.8	0.00	0.95	1.0	0.17	1.1	0.19	1.1	0.95	-1.0	0.04	1.1	0.00	1.4	0.00	1.8	0.00	1.3
A_24_P857624	NR_040071	LOC100131096	hypothetical LOC100131096	1.7	0.00	0.94	-1.0	0.84	1.0	0.86	1.0	0.83	1.1	0.03	1.3	0.00	1.7	0.00	1.7	0.04	1.3
A_23_P112774	NM_032611	PTP4A3	protein tyrosine phosphatase type IVA, member 3	1.7	0.00	0.82	1.0	0.11	1.1	0.52	1.0	0.76	-1.1	0.00	1.2	0.00	1.3	0.00	1.7	0.68	1.0
A_33_P3322804	NM_001018064	NTRK2	neurotrophic tyrosine kinase, receptor, type 2	1.7	0.00	0.17	-1.1	0.16	-1.1	0.00	-1.1	0.83	-1.0	0.82	1.0	0.00	1.3	0.00	1.7	0.02	1.2
A_23_P112634	NM_174921	C4orf34	chromosome 4 open reading frame 34	1.7	0.00	0.66	1.0	0.71	1.0	1.00	-1.0	0.84	-1.0	0.00	1.2	0.00	1.5	0.00	1.7	0.00	1.3
A_23_P368996	NM_198075	LRRC56	leucine rich repeat containing 56	1.7	0.00	0.98	1.0	0.59	1.0	0.54	1.1	0.84	-1.1	0.05	1.2	0.00	1.6	0.00	1.7	0.00	1.6
A_23_P128808	NM_013345	GPR132	G protein-coupled receptor 132	1.7	0.00	0.82	1.0	0.00	-1.3	0.08	-1.1	0.77	1.1	0.04	1.1	0.00	1.4	0.00	1.7	0.01	1.3
A_23_P121545	NM_201591	GPM6A	glycoprotein M6A	1.7	0.00	0.93	-1.0	0.45	1.0	0.77	1.0	1.00	-1.0	0.00	1.3	0.00	1.6	0.00	1.7	0.00	1.6
A_23_P428184	NM_021065	HIST1H2AD	histone cluster 1, H2ad	1.7	0.00	0.49	-1.1	0.00	-1.6	0.00	-1.7	0.91	-1.0	0.20	-1.2	0.00	-1.5	0.00	-1.7	0.04	-1.3
A_32_P132860	NR_024280	UNQ6494	hypothetical LOC100129066	1.7	0.00	0.72	-1.0	0.42	1.0	0.75	1.0	0.97	-1.0	0.00	1.3	0.00	1.4	0.00	1.7	0.00	1.3
A_33_P3371904	NM_198188	ASTN2	astrotactin 2	1.7	0.00	0.94	-1.0	0.43	-1.1	0.10	-1.1	1.00	-1.0	0.04	1.2	0.00	1.5	0.00	1.7	0.00	1.7
A_33_P3255209	NR_024275	LOC151162	hypothetical LOC151162	1.7	0.00	0.30	-1.1	0.00	-1.4	0.00	-1.7	0.82	1.1	0.73	1.0	0.04	1.2	0.01	1.2	0.15	1.2
A_33_P3323384	NM_015713	RRM2B	ribonucleotide reductase M2 B (TP53 inducible)	1.7	0.00	0.18	1.1	0.04	1.2	0.00	1.4	0.73	1.1	0.00	1.2	0.00	1.6	0.00	1.7	0.00	1.5
A_23_P29005	NM_022136	SAMSN1	SAM domain, SH3 domain and nuclear localization signals 1	1.7	0.00	0.51	-1.1	0.00	-1.5	0.00	-1.6	0.86	1.1	0.21	1.1	0.00	1.4	0.00	1.7	0.53	1.1
A_19_P00316946				1.7	0.00	0.66	-1.1	0.00	-1.7	0.00	-1.6	0.73	1.2	0.94	-1.0	0.87	-1.0	0.92	-1.0	0.58	1.1
A_24_P274615	NM_020801	ARRDC3	arrestin domain containing 3	1.7	0.00	0.92	1.0	0.07	1.2	0.00	1.7	0.94	1.0	0.42	-1.1	0.76	-1.0	0.78	-1.0	0.98	1.0
A_23_P124108	NM_000632	ITGAM	integrin, alpha M (complement component 3 receptor 3 subunit)	1.7	0.00	0.71	1.1	0.74	-1.0	0.27	-1.1	0.97	1.0	0.03	1.3	0.00	1.6	0.00	1.7	0.00	1.6
A_33_P3569068	NM_003550	MAD1L1	MAD1 mitotic arrest deficient-like 1 (yeast)	1.7	0.00	0.17	-1.3	0.00	-1.4	0.00	-1.7	0.89	-1.0	0.37	1.1	0.09	1.2	0.01	1.3	0.40	1.2
A_33_P3285038	NM_147190	CERS5	ceramide synthase 5	1.7	0.00	0.53	1.0	0.23	1.1	0.00	1.2	0.98	1.0	0.00	1.2	0.00	1.5	0.00	1.7	0.00	1.6
A_23_P51936	NM_001561	TNFRSF9	tumor necrosis factor receptor superfamily, member 9	1.7	0.00	0.92	-1.0	0.00	-1.2	0.00	-1.2	0.90	1.0	0.04	1.1	0.00	1.3	0.00	1.7	0.40	1.1
A_24_P120115	NM_003879	CFLAR	CASP8 and FADD-like apoptosis regulator	1.7	0.00	0.40	-1.1	0.00	-1.2	0.01	-1.2	0.92	-1.0	0.28	1.1	0.00	1.4	0.00	1.7	0.03	1.2
A_32_P59302		HIVEP3	human immunodeficiency virus type I enhancer binding protein 3	1.7	0.00	0.45	-1.1	0.28	-1.1	0.00	-1.4	0.87	1.1	0.12	1.2	0.00	1.5	0.00	1.7	0.16	1.2
A_23_P218770	NM_002872	RAC2	ras-related C3 botulinum toxin substrate 2 (rho family, small GTP bind	1.7	0.00	0.62	-1.0	0.34	-1.0	0.12	-1.1	0.84	-1.0	0.00	1.2	0.00	1.5	0.00	1.7	0.01	1.2
A_33_P3368358	NM_182966	NEDD9	neural precursor cell expressed, developmentally down-regulated 9	1.7	0.00	0.59	-1.0	0.58	-1.0	0.00	-1.1	0.88	-1.0	0.00	1.2	0.00	1.4	0.00	1.7	0.03	1.2
A_33_P3418025	NM_001334	CTSO	cathepsin O	1.7	0.00	0.94	1.0	0.04	1.1	0.13	1.1	0.98	-1.0	0.00	1.3	0.00	1.7	0.00	1.7	0.00	1.5
A_23_P208013	NM_017757	ZNF407	zinc finger protein 407	1.7	0.00	0.53	-1.1	0.00	-1.5	0.00	-1.7	0.99	-1.0	0.75	1.0	0.99	-1.0	0.82	1.0	0.34	-1.1
A_33_P3313476	NM_001136571	ZAR1L	zygote arrest 1-like	1.7	0.00	0.94	-1.0	0.98	1.0	0.00	1.7	0.81	1.1	0.43	1.1	0.12	1.2	0.02	1.3	0.20	1.3
A_23_P17065	NM_004591	CCL20	chemokine (C-C motif) ligand 20	1.7	0.00	0.49	-1.1	0.00	-1.6	0.00	-1.6	0.85	1.0	0.75	1.0	0.00	1.3	0.00	1.7	0.99	1.0
A_33_P3302632	NM_003523	HIST1H2BE	histone cluster 1, H2be	1.7	0.00	0.52	-1.1	0.02	-1.3	0.01	-1.3	0.96	-1.0	0.24	-1.2	0.00	-1.6	0.00	-1.7	0.01	-1.5
A_33_P3328254	NM_175725	IL5RA	interleukin 5 receptor, alpha	1.7	0.00	0.84	-1.0	0.07	1.1	0.63	-1.0	0.77	-1.1	0.00	1.2	0.00	1.5	0.00	1.7	0.00	1.5
A_23_P6914	NM_022776	OSBPL11	oxysterol binding protein-like 11	1.7	0.02	0.84	-1.1	0.02	-1.7	0.82	1.1	0.95	1.1	0.81	-1.1	0.67	-1.1	0.43	-1.2	0.98	-1.0
A_24_P182494	NM_007207	DUSP10	dual specificity phosphatase 10	1.7	0.00	0.65	-1.1	0.02	-1.2	0.00	-1.3	0.84	1.1	0.25	1.1	0.00	1.4	0.00	1.7	0.36	1.1
A_33_P3849600		HSP90AA2	heat shock protein 90kDa alpha (cytosolic), class A member 2	1.7	0.00	0.61	1.1	0.05	1.2	0.00	1.3	0.85	1.1	0.00	-1.3	0.00	-1.6	0.00	-1.7	0.23	-1.2
A_23_P106204	NM_145870	GSTZ1	glutathione transferase zeta 1	1.7	0.00	0.93	1.0	0.89	-1.0	0.51	1.0	0.80	-1.0	0.00	1.3	0.00	1.7	0.00	1.7	0.00	1.4
A_23_P52806	NM_012104	BACE1	beta-site APP-cleaving enzyme 1	1.7	0.00	0.77	-1.0	0.00	1.1	0.00	1.2	0.89	-1.0	0.00	1.2	0.00	1.6	0.00	1.4	0.00	1.7
A_33_P3276703	NM_003378	VGF	VGF nerve growth factor inducible	1.7	0.00	0.99	1.0	0.92	-1.0	0.00	1.7	0.93	1.0	0.86	1.0	0.90	-1.0	0.18	-1.2	0.72	-1.1
A_23_P200252	NM_032324	NTPCR	nucleoside-triphosphatase, cancer-related	1.7	0.00	0.27	1.1	0.02	1.1	0.00	1.1	0.74	-1.1	0.00	1.3	0.00	1.7	0.00	1.7	0.00	1.5
A_23_P67299	NM_020812	DOCK6	dedicator of cytokinesis 6	1.7	0.00	0.70	1.0	0.81	1.0	0.81	-1.0	0.95	1.0	0.00	1.2	0.00	1.4	0.00	1.7	0.00	1.3
A_23_P206501	NM_001011880	CLEC18B	C-type lectin domain family 18, member B	1.7	0.00	0.76	-1.1	0.00	-1.7	0.61	-1.1	0.85	1.1	0.63	1.1	0.19	1.2	0.02	1.4	0.02	1.7
A_23_P2573	NM_032256	TMEM117	transmembrane protein 117	1.7	0.00	0.26	-1.2	0.00	-1.4	0.00	-1.7	1.00	1.0	0.79	1.0	0.76	1.0	0.66	-1.0	0.91	1.0
A_32_P199252	NM_001017963	HSP90AA1	heat shock protein 90kDa alpha (cytosolic), class A member 1	1.7	0.00	1.00	-1.0	0.11	1.2	0.01	1.2	0.98	1.0	0.00	-1.4	0.00	-1.6	0.00	-1.7	0.18	-1.2
A_33_P3381513	NM_014143	CD274	CD274 molecule	1.7	0.00	0.82	-1.0	0.09	-1.1	0.49	1.0	0.95	1.0	0.28	1.1	0.00	1.5	0.00	1.7	0.00	1.4
A_33_P3364493				1.7	0.00	0.79	-1.0	0.00	1.3	0.00	1.7	0.94	-1.0	0.08	1.1	0.00	1.4	0.00	1.7	0.00	1.4
A_33_P3281191	NM_002508	NID1	nidogen 1	1.7	0.00	0.82	1.0	0.98	1.0	0.81	-1.0	0.80	1.1	0.75	1.0	0.00	1.2	0.00	1.4	0.00	1.7
A_23_P169576	NM_019053	EXOC6	exocyst complex component 6	1.7	0.00	0.37	-1.1	0.00	-1.4	0.00	-1.7	0.86	1.0	0.98	-1.0	0.75	-1.0	0.29	-1.1	0.76	-1.0
A_23_P89343	NM_152244	SNX11	sorting nexin 11	1.7	0.00	0.90	-1.0	0.01	-1.2	0.00	-1.2	0.85	-1.0	0.03	1.2	0.00	1.3	0.00	1.7	0.98	1.0
A_23_P218237	NM_000229	LCAT	lecithin-cholesterol acyltransferase	1.7	0.00	0.37	1.1	0.00	1.2	0.00	1.5	0.97	1.0	0.05	1.2	0.00	1.5	0.00	1.7	0.00	1.7
A_33_P3393821	NM_001733	C1R	complement component 1, r subcomponent	1.7	0.00	0.94	1.0	0.05	1.1	0.02	1.1	0.99	1.0	0.01	1.2	0.00	1.7	0.00	1.7	0.00	1.6
A_33_P3344201	NM_032375	AKT1S1	AKT1 substrate 1 (proline-rich)	1.7	0.00	0.93	1.0	0.28	-1.1	0.70	-1.0	1.00	1.0	0.12	1.2	0.00	1.4	0.00	1.7	0.58	1.1
A_23_P251316	NM_001331	CTNND1	catenin (cadherin-associated protein), delta 1	1.7	0.00	0.95	1.0	0.79	1.0	0.80	-1.0	0.98	-1.0	0.01	1.2	0.00	1.5	0.00	1.7	0.00	1.4
A_24_P55148	NM_021058	HIST1H2BJ	histone cluster 1, H2bj	1.7	0.00	0.54	-1.1	0.00	-1.6	0.00	-1.6	0.93	-1.0	0.27	-1.2	0.00	-1.6	0.00	-1.7	0.03	-1.4
A_23_P17134	NM_002371	MAL	mal, T-cell differentiation protein	1.7	0.00	0.96	1.0	0.32	1.1	0.97	-1.0	1.00	1.0	0.07	1.1	0.00	1.4	0.00	1.7	0.00	1.3
A_32_P107029	NM_004851	NAPSA	napsin A aspartic peptidase	1.7	0.00	0.67	1.0	0.54	1.0	0.14	-1.1	0.85	-1.0	0.00	1.3	0.00	1.7	0.00	1.7	0.00	1.5
A_23_P62588	NM_138705	CALML6	calmodulin-like 6	1.7	0.00	0.95	-1.0	1.00	-1.0	0.02	1.2	0.88	1.0	0.02	1.2	0.00	1.5	0.00	1.7	0.00	1.4
A_33_P3414880	XR_115108	LOC339192	hypothetical LOC339192	1.7	0.00	0.95	1.0	0.57	-1.0	0.25	1.1	0.82	1.0	0.00	1.2	0.00	1.5	0.00	1.7	0.00	1.4
A_23_P48747	NM_138452	DHRS1	dehydrogenase/reductase (SDR family) member 1	1.7	0.00	0.28	1.1	0.00	1.1	0.00	1.2	0.91	-1.0	0.00	1.3	0.00	1.6	0.00	1.7	0.00	1.4
A_23_P29248	NM_003312	TST	thiosulfate sulfurtransferase (rhodanese)	1.7	0.00	0.96	1.0	0.00	1.2	0.00	1.4	0.74	-1.1	0.00	1.3	0.00	1.7	0.00	1.7	0.00	1.5
A_23_P502797	NM_020830	WDFY1	WD repeat and FYVE domain containing 1	1.7	0.00	1.00	-1.0	0.43	-1.1	0.15	-1.1	0.97	-1.0	0.22	1.1	0.00	1.4	0.00	1.7	0.06	1.2
A_19_P00318878				1.7	0.00	0.76	1.0	0.30	1.1	0.01	1.1	0.81	1.0	0.04	1.2	0.00	1.5	0.00	1.7	0.00	1.5
A_23_P163567	NM_018667	SMPD3	sphingomyelin phosphodiesterase 3, neutral membrane (neutral sphir	1.7	0.00	0.97	-1.0	0.73	1.0	0.95	1.0	0.99	-1.0	0.01	1.2	0.00	1.4	0.00	1.7	0.00	1.6
A_23_P134078	NM_004824	CDYL	chromodomain protein, Y-like	1.7	0.00	0.55	-1.1	0.00	-1.4	0.00	-1.7	0.97	1.0	0.93	-1.0	0.72	-1.0	0.41	-1.1	0.32	-1.1
A_32_P4018		ROR1	receptor tyrosine kinase-like orphan receptor 1	1.7	0.00	0.22	-1.2	0.00	-1.5	0.00	-1.7	0.89	1.0	0.84	1.0	0.86	1.0	0.53	-1.1	0.48	1.1
A_24_P26897	NM_005539	INPP5A	inositol polyphosphate-5-phosphatase, 40kDa	1.7	0.00	0.42	-1.1	0.00	-1.4	0.00	-1.7	0.90	-1.0	1.00	-1.0	0.79	-1.0	0.83	-1.0	0.69	-1.1
A_23_P33683	NM_016496	40970.0	membrane-associated ring finger (C3HC4) 2	1.7	0.00	0.63	1.0	0.12	1.1	0.00	1.1	0.79	1.0	0.00	1.3	0.00	1.6	0.00	1.7	0.00	1.5
A_24_P56317	NM_144778	MBNL2	muscleblind-like 2 (Drosophila)	1.7	0.00	0.18	-1.2	0.00	-1.5	0.00	-1.7	0.94	1.0	0.95	1.0	0.01	1.2	0.00	1.3	0.06	1.3
A_23_P28697	NM_012205	HAAO	3-hydroxyanthranilate 3,4-dioxygenase	1.7	0.00	0.65	1.0	0.97	1.0	0.14	1.1	0.99	-1.0	0.00	1.3	0.00	1.6	0.00	1.7	0.00	1.4
A_24_P135322	NM_001024629	NRP1	neuropilin 1	1.7	0.00	0.94	-1.0	0.34	-1.0	0.97	1.0	0.54	-1.1	0.00	1.3	0.00	1.5	0.00	1.7	0.00	1.3
A_24_P122921	NM_138621	BCL2L11	BCL2-like 11 (apoptosis facilitator)	1.7	0.00	0.41	-1.1	0.03	-1.1	0.00	-1.3	0.96	-1.0	0.00	1.2	0.00	1.5	0.00	1.7	0.03	1.2
A_24_P194714	NM_182565	FAM100B	family with sequence similarity 100, member B	1.7	0.00	0.35	-1.1	0.00	-1.3	0.01	-1.2	0.82	-1.1	0.59	1.1	0.00	1.6	0.00	1.7	0.00	1.5
A_19_P00324038				1.7	0.00	0.94	1.0	0.02	1.2	0.00	1.7	0.74	1.1	0.05	1.2	0.00	1.6	0.00	1.6	0.01	1.4
A_23_P5903	NM_016354	SLCO4A1	solute carrier organic anion transporter family, member 4A1	1.7	0.00	0.49	1.1	0.04	1.1	0.03	1.1	0.91	-1.0	0.29	-1.1	0.00	-1.5	0.00	-1.7	0.00	-1.4
A_23_P49816	NM_018404	ADAP2	ArfGAP with dual PH domains 2	1.7	0.00	0.16	-1.1	0.00	-1.2	0.15	1.1	0.95	-1.0	0.04	1.1	0.00	1.5	0.00	1.7	0.00	1.3
A_23_P106898	NM_152288	ORAI3	ORAI calcium release-activated calcium modulator 3	1.7	0.00	0.39	1.1	0.00	1.2	0.00	1.3	0.94	-1.0	0.00	1.3	0.00	1.6	0.00	1.7	0.00	1.7
A_23_P111054	NM_021062	HIST1H2BB	histone cluster 1, H2bb	1.7	0.00	0.38	-1.1	0.00	-1.4	0.00	-1.5	0.91	-1.0	0.29	-1.1	0.00	-1.5	0.00	-1.7	0.01	-1.4
A_24_P373286	NM_014711	CCP110	centriolar coiled coil protein 110kDa	1.7	0.00	0.22	1.2	0.00	1.4	0.00	1.7	0.90	1.0	0.86	1.0	0.07	1.2	0.00	1.3	0.01	1.4
A_33_P3315021				1.7	0.00	0.47	1.1	0.00	1.3	0.00	1.5	0.97	1.0	0.07	1.2	0.00	1.5	0.00	1.7	0.01	1.3
A_32_P37592	NR_003003	SCARNA17	small Cajal body-specific RNA 17	1.7	0.00	0.73	-1.0	0.76	1.0	0.05	1.1	0.92	1.0	0.32	1.1	0.00	1.6	0.00	1.7	0.00	1.4
A_19_P00316601				1.7	0.00	0.46	1.2	0.05	1.3	0.00	1.7	0.81	1.1	0.60	1.1	0.15	1.2	0.47	1.1	0.66	1.1
A_33_P3217819	NM_057749	CCNE2	cyclin E2	1.7	0.00	0.29	1.2	0.00	1.5	0.00	1.7	0.90	1.0	0.98	1.0	0.05	-1.2	0.04	-1.2	0.36	-1.2
A_23_P160862	NM_031844	HNRNPU	heterogeneous nuclear ribonucleoprotein U (scaffold attachment factc	1.7	0.00	0.51	-1.0	0.14	-1.0	0.00	-1.1	0.94	-1.0	0.00	-1.2	0.00	-1.4	0.00	-1.7	0.00	-1.4
A_23_P158880	NM_181900	STARD5	StAR-related lipid transfer (START) domain containing 5	1.7	0.00	0.77	1.0	0.54	1.0	0.01	1.2	0.81	-1.0	0.28	1.1	0.00	1.3	0.00	1.5	0.00	1.7
A_23_P345710	NM_152531	C3orf21	chromosome 3 open reading frame 21	1.7	0.00	0.67	-1.1	0.00	-1.7	0.09	-1.3	0.97	1.0	0.93	1.0	0.74	-1.1	0.55	-1.1	0.79	-1.1
A_23_P340848	NM_000960	PTGIR	prostaglandin I2 (prostacyclin) receptor (IP)	1.7	0.00	0.43	1.1	0.00	1.2	0.00	1.2	0.95	-1.0	0.00	1.2	0.00	1.5	0.00	1.7	0.00	1.3
A_24_P207139	NM_033238	PML	promyelocytic leukemia	1.7	0.00	0.96	1.0	0.04	1.2	0.04	1.1	0.93	-1.0	0.00	1.3	0.00	1.6	0.00	1.7	0.02	1.3
A_23_P380614	NM_006045	ATP9A	ATPase, class II, type 9A	1.7	0.00	0.57	1.0	0.53	1.0	0.15	-1.1	0.87	1.0	0.15	1.1	0.00	1.5	0.00	1.6	0.00	1.7
A_33_P3226008	NM_001190259	GCET2	germinal center expressed transcript 2	1.7	0.00	0.27	-1.1	0.41	-1.0	0.05	-1.1	0.93	-1.0	0.04	1.1	0.00	1.3	0.00	1.7	0.01	1.2
A_24_P37540	NM_001198793	ARPC4-TTLL3	ARPC4-TTLL3 readthrough	1.7	0.00	0.70	1.0	0.21	1.1	0.61	1.0	0.90	1.0	0.00	1.3	0.00	1.5	0.00	1.7	0.00	1.3
A_33_P3219303	NM_001807	CEL	carboxyl ester lipase (bile salt-stimulated lipase)	1.7	0.00	0.83	1.0	0.00	1.3	0.00	1.3	0.95	1.0	0.02	1.2	0.00	1.7	0.00	1.7	0.00	1.6
A_23_P13382	NM_001013254	LSP1	lymphocyte-specific protein 1	1.7	0.00	0.88	-1.0	0.57	-1.0	0.86	1.0	0.84	-1.0	0.01	1.2	0.00	1.5	0.00	1.7	0.04	1.2
A_24_P335620	NM_003486	SLC7A5	solute carrier family 7 (amino acid transporter light chain, L system), n	1.7	0.00	0.89	-1.0	0.07	-1.1	0.00	-1.2	0.98	-1.0	0.00	-1.2	0.00	-1.7	0.00	-1.7	0.00	-1.4
A_33_P3412438				1.7	0.00	0.27	-1.1	0.22	-1.1	0.04	-1.1	0.75	-1.1	0.00	1.3	0.00	1.7	0.00	1.7	0.00	1.4



A_23_P216845	NM_004188	GFI1B	growth factor independent 1B transcription repressor	1.5	0.00	0.98	1.0	0.24	1.1	0.06	-1.1	0.74	-1.1	0.00	1.1	0.00	1.3	0.00	1.3	0.00	1.5
A_32_P208403	NM_053064	GNG2	guanine nucleotide binding protein (G protein), gamma 2	1.5	0.00	0.86	1.0	0.81	-1.0	0.00	-1.2	0.86	1.0	0.03	1.1	0.00	1.3	0.00	1.5	0.01	1.2
A_19_P00325781				1.5	0.00	0.71	1.1	0.58	1.1	0.00	1.5	0.95	-1.0	0.80	1.1	0.49	1.1	0.72	1.1	1.00	-1.0
A_33_P3363355	NM_022377	ICAM4	intercellular adhesion molecule 4 (Landsteiner-Wiener blood group)	1.5	0.00	0.60	-1.1	0.42	-1.1	0.07	-1.3	0.80	1.1	0.77	1.1	0.02	1.4	0.00	1.5	0.17	1.4
A_24_P192805	NM_001007232	CARD17	caspase recruitment domain family, member 17	1.5	0.00	0.47	-1.1	0.44	-1.1	0.75	-1.0	0.89	-1.0	0.44	1.1	0.00	1.3	0.00	1.5	0.05	1.2
A_33_P3234859	NM_007124	UTRN	utrophin	1.5	0.00	0.81	-1.0	0.02	-1.2	0.04	-1.1	0.74	1.1	0.05	1.2	0.00	1.5	0.00	1.5	0.00	1.5
A_24_P374634	NM_001164380	STAU2	staufen, RNA binding protein, homolog 2 (Drosophila)	1.5	0.00	0.89	-1.0	0.00	-1.4	0.00	-1.5	0.91	-1.0	0.61	-1.1	0.01	-1.2	0.00	-1.4	0.93	-1.0
A_23_P50946	NM_005855	RAMP1	receptor (G protein-coupled) activity modifying protein 1	1.5	0.00	0.29	-1.1	0.13	1.1	0.00	-1.2	0.95	1.0	0.00	1.2	0.00	1.4	0.00	1.5	0.00	1.3
A_23_P368711	NM_006864	LILRB3	leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITI	1.5	0.00	0.80	-1.0	0.26	1.0	0.63	-1.0	0.89	-1.0	0.00	1.2	0.00	1.4	0.00	1.5	0.00	1.3
A_33_P3285987	NM_152636	METTL15	methyltransferase like 15	1.5	0.00	0.58	-1.1	0.00	-1.4	0.00	-1.5	0.84	1.1	0.87	-1.0	0.48	-1.1	0.63	-1.0	0.52	1.1
A_32_P69368	NM_002166	ID2	inhibitor of DNA binding 2, dominant negative helix-loop-helix protein	1.5	0.00	0.31	-1.1	0.02	-1.1	0.00	-1.3	0.98	1.0	0.00	1.2	0.00	1.4	0.00	1.5	0.00	1.2
A_19_P00812742				1.5	0.00	0.68	-1.0	0.21	-1.1	0.47	-1.0	0.73	1.1	0.72	-1.0	0.01	-1.1	0.00	-1.5	0.08	-1.1
A_19_P00806771				1.5	0.00	0.58	-1.1	0.73	-1.0	0.26	-1.1	0.85	-1.0	0.09	1.1	0.00	1.4	0.00	1.5	0.00	1.4
A_23_P82351	NM_198428	BBS9	Bardet-Biedl syndrome 9	1.5	0.00	0.63	-1.0	0.07	-1.1	0.00	-1.2	0.84	-1.0	0.07	1.1	0.00	1.5	0.00	1.5	0.00	1.5
A_32_P8813	NR_024433	LOC283663	hypothetical LOC283663	1.5	0.00	0.91	1.0	0.41	-1.1	0.45	-1.1	0.70	1.2	0.82	-1.0	0.21	1.1	0.00	1.5	0.16	1.2
A_23_P18493	NM_080685	PTPN13	protein tyrosine phosphatase, non-receptor type 13 (APO-1/CD95 (Fa	1.5	0.00	0.64	-1.0	0.00	-1.3	0.00	-1.5	0.90	1.0	0.89	-1.0	0.86	-1.0	0.42	-1.1	0.66	-1.0
A_23_P168951	NM_014943	ZHX2	zinc fingers and homeoboxes 2	1.5	0.00	0.83	-1.0	0.00	-1.4	0.00	-1.5	0.81	-1.1	0.64	1.1	0.34	-1.1	0.76	-1.0	0.39	-1.1
A_19_P00812485				1.5	0.00	0.62	1.1	0.02	1.2	0.00	1.5	0.88	1.0	0.63	1.1	0.01	1.2	0.16	1.1	0.42	1.1
A_23_P88331	NM_014750	DLGAP5	discs, large (Drosophila) homolog-associated protein 5	1.5	0.00	0.20	-1.2	0.00	-1.3	0.00	-1.5	0.95	-1.0	0.68	-1.0	0.46	1.1	0.00	-1.2	0.99	1.0
A_23_P502142	NM_002037	FYN	FYN oncogene related to SRC, FGR, YES	1.5	0.00	0.33	-1.1	0.00	-1.2	0.00	-1.4	0.96	1.0	0.04	1.2	0.00	1.4	0.00	1.5	0.04	1.2
A_33_P3368452	NM_000247	MICA	MHC class I polypeptide-related sequence A	1.5	0.00	0.40	1.1	0.04	1.1	0.00	1.5	0.78	1.1	0.54	1.0	0.97	-1.0	0.54	1.0	0.00	1.3
A_33_P3388958	NM_152760	SNX32	sorting nexin 32	1.5	0.00	0.64	1.0	0.44	1.0	0.09	1.1	0.98	1.0	0.23	1.1	0.00	1.5	0.00	1.5	0.00	1.4
A_23_P111343	NM_014739	BCLAF1	BCL2-associated transcription factor 1	1.5	0.00	0.74	1.0	0.48	1.0	0.67	1.0	0.75	1.1	0.00	-1.3	0.00	-1.3	0.00	-1.5	0.17	-1.1
A_23_P88678	NM_152335	C15orf27	chromosome 15 open reading frame 27	1.5	0.00	0.19	-1.2	0.74	-1.0	0.04	-1.2	0.77	-1.1	0.89	1.0	0.10	1.1	0.00	1.5	0.56	-1.1
A_24_P287043	NM_006435	IFITM2	interferon induced transmembrane protein 2 (1-8D)	1.5	0.00	0.85	-1.0	0.18	1.1	0.57	1.0	0.96	-1.0	0.07	1.1	0.00	1.5	0.00	1.5	0.00	1.4
A_23_P158725	NM_001042422	SLC16A3	solute carrier family 16, member 3 (monocarboxylic acid transporter 4	1.5	0.00	0.90	1.0	0.34	1.1	0.98	-1.0	0.90	1.0	0.03	1.2	0.00	1.5	0.00	1.5	0.01	1.3
A_23_P119130	NM_001022	RPS19	ribosomal protein S19	1.5	0.00	0.88	-1.0	0.92	-1.0	0.11	1.0	0.99	-1.0	0.00	1.2	0.00	1.4	0.00	1.5	0.00	1.3
A_32_P66881	NM_138554	TLR4	toll-like receptor 4	1.5	0.00	0.56	-1.0	0.00	-1.2	0.00	-1.4	0.78	-1.0	0.00	1.2	0.00	1.4	0.00	1.5	0.00	1.3
A_23_P25475	NM_003578	SOAT2	sterol O-acyltransferase 2	1.5	0.00	0.75	-1.0	0.44	1.0	0.00	-1.1	0.94	1.0	0.61	-1.0	0.01	1.1	0.42	-1.0	0.00	1.5
A_23_P91590	NM_002882	RANBP1	RAN binding protein 1	1.5	0.00	0.78	1.0	0.21	1.1	0.33	1.1	0.83	1.0	0.00	-1.2	0.00	-1.4	0.00	-1.5	0.08	-1.2
A_33_P3293918	NM_170600	SH2D3C	SH2 domain containing 3C	1.5	0.00	0.18	-1.1	0.83	1.0	0.24	-1.1	0.87	-1.0	0.07	1.1	0.00	1.5	0.00	1.4	0.00	1.4
A_23_P20894	NM_024757	EHMT1	euchromatic histone-lysine N-methyltransferase 1	1.5	0.00	0.95	-1.0	0.06	-1.3	0.00	-1.5	0.93	-1.0	0.27	1.2	0.94	-1.0	0.84	1.0	0.80	1.1
A_33_P3406004	NM_058181	YBEY	ybeY metallopeptidase (putative)	1.5	0.00	0.94	1.0	0.08	1.1	0.05	1.1	0.80	-1.0	0.00	1.1	0.00	1.4	0.00	1.5	0.00	1.2
A_24_P360269	NM_003730	RNASET2	ribonuclease T2	1.5	0.04	0.72	-1.1	0.04	-1.5	0.59	1.1	0.99	-1.0	0.77	1.1	0.28	1.2	0.27	1.2	0.73	1.1
A_23_P212400	NM_012191	NAT6	N-acetyltransferase 6 (GCN5-related)	1.5	0.00	0.25	1.1	0.01	1.1	0.00	1.5	0.97	-1.0	0.46	1.1	0.32	-1.1	0.00	-1.1	0.96	-1.0
A_32_P183918	NR_033851	MGC39372	serpin peptidase inhibitor, clade B (ovalbumin), member 9 pseudogen	1.5	0.00	0.69	1.0	0.44	-1.0	0.14	-1.1	0.88	-1.0	0.44	1.1	0.00	1.3	0.00	1.5	0.02	1.2
A_23_P369733	NM_020850	RANBP10	RAN binding protein 10	1.5	0.00	0.97	-1.0	0.09	-1.1	0.01	-1.1	0.92	-1.0	0.04	1.1	0.00	1.3	0.00	1.5	0.00	1.3
A_23_P116387	NM_001040694	INCENP	inner centromere protein antigens 135/155kDa	1.5	0.00	0.59	-1.1	0.01	-1.4	0.00	-1.5	0.92	-1.0	0.92	1.0	0.46	-1.1	0.09	-1.2	0.75	-1.1
A_33_P3390236	NR_034139	LOC338963	epididymal protein pseudogene	1.5	0.00	0.21	1.2	0.00	1.3	0.00	1.5	0.77	1.1	0.59	1.1	0.09	1.1	0.02	1.2	0.17	1.2
A_23_P127781	NM_006552	SCGB1D1	secretoglobin, family 1D, member 1	1.5	0.00	0.95	1.0	0.40	1.1	0.97	1.0	1.00	-1.0	0.47	1.1	0.00	1.3	0.00	1.3	0.00	1.5
A_24_P264207	NM_002823	PTMA	prothymosin, alpha	1.5	0.00	0.61	-1.1	0.98	1.0	0.47	1.1	0.98	1.0	0.01	-1.3	0.00	-1.3	0.00	-1.5	0.66	-1.1
A_23_P250735	NM_175709	CBX7	chromobox homolog 7	1.5	0.00	0.92	1.0	0.25	1.1	0.64	-1.0	0.99	-1.0	0.00	1.2	0.00	1.5	0.00	1.4	0.00	1.3
A_24_P941912	NM_138287	DTX3L	deltex 3-like (Drosophila)	1.5	0.00	0.72	1.0	0.81	-1.0	0.55	-1.0	0.84	1.0	0.00	1.2	0.00	1.4	0.00	1.5	0.00	1.2
A_32_P51894	NM_031844	HNRNPU	heterogeneous nuclear ribonucleoprotein U (scaffold attachment factc	1.5	0.00	0.95	1.0	0.05	1.1	0.93	1.0	0.85	1.0	0.12	-1.1	0.00	-1.3	0.00	-1.5	0.00	-1.3
A_23_P103476	NM_013319	UBIAD1	UbiA prenyltransferase domain containing 1	1.5	0.00	0.51	1.1	0.21	1.1	0.00	1.2	0.96	-1.0	0.02	-1.2	0.00	-1.4	0.00	-1.5	0.01	-1.2
A_33_P3665777	NM_001017963	HSP90AA1	heat shock protein 90kDa alpha (cytosolic), class A member 1	1.5	0.00	0.60	1.0	0.03	1.1	0.00	1.1	0.93	1.0	0.00	-1.2	0.00	-1.4	0.00	-1.5	0.00	-1.2
A_23_P129312	NM_017726	PPP1R14D	protein phosphatase 1, regulatory (inhibitor) subunit 14D	1.5	0.00	0.26	1.3	0.00	1.5	0.81	-1.0	0.92	1.0	0.63	1.1	0.59	1.1	0.77	-1.0	0.98	1.0
A_19_P00327125				1.5	0.02	0.91	1.0	0.02	1.5	0.61	1.1	0.86	1.1	0.88	-1.0	0.71	-1.1	0.88	1.0	0.99	-1.0
A_33_P3367830	NM_016938	EFEMP2	EGF containing fibulin-like extracellular matrix protein 2	1.5	0.00	0.55	1.1	0.02	1.2	0.00	1.3	0.91	1.0	0.18	1.1	0.00	1.4	0.00	1.5	0.00	1.4
A_32_P83784	NM_015230	ARAP2	ArfGAP with RhoGAP domain, ankyrin repeat and PH domain 2	1.5	0.00	0.86	1.0	0.00	-1.3	0.00	-1.5	0.87	1.0	0.90	-1.0	0.66	-1.0	0.80	-1.0	0.78	1.0
A_32_P49867	NM_001195520	LOC100507055	hypothetical LOC100507055	1.5	0.00	0.70	1.1	0.21	1.2	0.00	1.5	1.00	1.0	0.85	-1.0	0.97	-1.0	0.93	1.0	0.87	-1.1
A_33_P3260605	NM_003798	CTNNAL1	catenin (cadherin-associated protein), alpha-like 1	1.5	0.00	0.94	-1.0	0.39	1.1	0.02	1.2	0.89	1.0	0.04	-1.3	0.00	-1.5	0.00	-1.5	0.72	1.1
A_23_P148297	NM_003022	SH3BGRL	SH3 domain binding glutamic acid-rich protein like	1.5	0.00	0.97	1.0	0.70	-1.0	0.95	-1.0	0.98	1.0	0.02	1.1	0.00	1.4	0.00	1.5	0.05	1.2
A_33_P3247332				1.5	0.00	0.51	1.1	0.00	1.3	0.00	1.4	0.94	1.0	0.58	1.1	0.02	1.2	0.01	1.2	0.00	1.5
A_24_P331655	NM_001040715	KIAA0895L	KIAA0895-like	1.5	0.00	0.47	1.1	0.73	1.0	0.01	1.1	0.77	1.1	0.02	1.2	0.00	1.4	0.00	1.5	0.00	1.5
A_23_P165201	NM_021232	PRODH2	proline dehydrogenase (oxidase) 2	1.5	0.00	0.78	1.0	0.76	1.0	0.37	1.1	0.76	-1.1	0.19	1.1	0.12	1.1	0.21	1.1	0.00	1.5
A_19_P00324436				1.5	0.00	0.77	1.0	0.20	1.1	0.00	1.5	0.74	1.1	0.60	1.1	0.06	1.2	0.16	1.1	0.37	1.1
A_33_P3286208	NM_203467	LRR1	leucine rich repeat protein 1	1.5	0.00	0.89	1.0	0.55	1.0	0.92	-1.0	0.91	-1.0	0.27	-1.1	0.00	-1.4	0.00	-1.5	0.00	-1.3
A_23_P201079	NM_012231	PRDM2	PR domain containing 2, with ZNF domain	1.5	0.00	0.59	1.1	0.01	1.4	0.00	1.5	0.84	-1.1	0.72	-1.1	0.83	-1.0	0.48	-1.1	0.76	-1.1
A_23_P121602	NM_003864	SAP30	Sin3A-associated protein, 30kDa	1.5	0.00	0.33	-1.1	0.00	-1.1	0.00	-1.2	0.95	-1.0	0.00	-1.1	0.00	-1.3	0.00	-1.5	0.00	-1.2
A_23_P80648	NM_033540	MFN1	mitofusin 1	1.5	0.00	0.80	1.0	0.72	-1.0	0.77	-1.0	0.96	-1.0	0.16	1.1	0.00	1.3	0.00	1.5	0.23	1.1
A_32_P212058	NM_032898	CEP19	centrosomal protein 19kDa	1.5	0.00	0.91	1.0	0.89	-1.0	0.00	1.3	0.90	-1.0	0.06	1.2	0.00	1.4	0.00	1.5	0.01	1.3
A_23_P87545	NM_021034	IFITM3	interferon induced transmembrane protein 3	1.5	0.00	0.91	1.0	0.48	1.0	0.11	1.1	0.79	-1.0	0.03	1.1	0.00	1.4	0.00	1.5	0.02	1.2
A_33_P3229067	NM_003520	HIST1H2BN	histone cluster 1, H2bn	1.5	0.00	0.35	-1.1	0.00	-1.3	0.00	-1.3	0.89	-1.0	0.31	-1.1	0.00	-1.3	0.00	-1.5	0.04	-1.2
A_19_P00321872				1.5	0.00	0.57	1.0	0.05	1.1	0.00	1.2	0.97	1.0	0.83	-1.0	0.00	1.3	0.00	1.5	0.00	1.5
A_19_P00328880				1.5	0.00	0.60	1.1	0.92	1.0	0.39	1.1	0.75	1.1	0.01	1.2	0.00	1.4	0.00	1.5	0.00	1.3
A_24_P333421	NM_001099220	ZNF862	zinc finger protein 862	1.5	0.00	0.67	1.0	0.67	1.0	0.00	1.4	0.83	1.0	0.10	1.1	0.00	1.4	0.00	1.5	0.02	1.2
A_24_P96403	NM_001001890	RUNX1	runt-related transcription factor 1	1.5	0.00	0.49	-1.1	0.01	-1.2	0.00	-1.5	0.97	-1.0	0.68	-1.0	0.94	1.0	0.09	-1.1	0.68	1.1
A_33_P3380161	NR_026778	NCRNA00201	non-protein coding RNA 201	1.5	0.00	0.42	1.2	0.04	1.3	0.27	1.1	0.74	1.2	0.75	-1.1	0.16	-1.2	0.00	-1.5	0.46	-1.2
A_23_P55356	NM_182566	VMO1	vitelline membrane outer layer 1 homolog (chicken)	1.5	0.00	0.69	1.0	0.00	1.2	0.00	1.5	0.77	1.1	0.04	1.1	0.00	1.2	0.00	1.2	0.02	1.2
A_33_P3246505		MAP3K8	mitogen-activated protein kinase kinase kinase 8	1.5	0.00	0.66	-1.1	0.00	-1.3	0.00	-1.5	0.97	-1.0	0.66	1.0	0.88	1.0	0.87	1.0	0.76	-1.0
A_33_P3422888		CLEC16A	C-type lectin domain family 16, member A	1.5	0.00	0.58	-1.0	0.69	-1.0	0.29	-1.0	0.94	1.0	0.03	1.1	0.00	1.3	0.00	1.5	0.02	1.2
A_33_P3343442				1.5	0.00	0.52	-1.1	0.56	1.0	0.00	-1.5	0.92	-1.0	0.54	-1.1	0.00	-1.2	0.17	-1.1	0.51	-1.1
A_33_P3292794	NM_014311	SMUG1	single-strand-selective monofunctional uracil-DNA glycosylase 1	1.5	0.00	0.96	-1.0	0.23	-1.1	0.12	1.1	0.95	-1.0	0.04	1.2	0.00	1.4	0.00	1.5	0.23	1.2
A_23_P97860	NM_000235	LIPA	lipase A, lysosomal acid, cholesterol esterase	1.5	0.00	0.60	1.0	0.29	1.1	0.71	1.0	0.93	1.0	0.02	1.2	0.00	1.4	0.00	1.5	0.01	1.2
A_23_P208866	NM_004877	GMFG	glia maturation factor, gamma	1.5	0.00	0.62	1.0	0.03	1.1	0.00	1.1	0.96	-1.0	0.00	1.2	0.00	1.5	0.00	1.5	0.00	1.4
A_23_P218111	NM_001002236	SERPINA1	serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin)	1.5	0.00	0.46	1.1	0.12	1.1	0.09	1.1	0.76	1.1	0.26	1.1	0.00	1.2	0.00	1.5	0.03	1.2
A_33_P3408757				1.5	0.00	0.55	-1.1	0.15	1.1	0.94	1.0	0.80	-1.1	0.01	1.2	0.00	1.4	0.00	1.5	0.00	1.4
A_33_P3273584	NR_003023	SCARNA2	small Cajal body-specific RNA 2	1.5	0.00	0.69	1.0	0.40	-1.0	0.84	1.0	0.75	1.0	0.22	1.1	0.00	1.4	0.00	1.5	0.00	1.2
A_23_P328600	NM_024959	SLC24A6	solute carrier family 24 (sodium/potassium/calcium exchanger), memt	1.5	0.02	0.89	-1.1	0.09	-1.4	0.02	1.5	0.95	-1.0	0.76	1.1	0.48	1.2	0.46	1.2	0.70	1.1
A_24_P229531	NM_001031716	OBFC2A	oligonucleotide/oligosaccharide-binding fold containing 2A	1.5	0.00	0.95	1.0	0.27	1.1	0.00	1.3	0.85	1.0	0.39	1.1	0.00	1.3	0.00	1.5	0.23	1.1
A_19_P00322587				1.5	0.00	0.31	1.2	0.24	-1.1	0.77	1.0	0.89	1.0	0.24	1.1	0.00	1.4	0.00	1.5	0.03	1.3
A_33_P3369311	NM_001142568	BBX	bobby sox homolog (Drosophila)	1.5	0.00	0.44	-1.1	0.00	-1.4	0.00	-1.5	0.84	-1.1	0.62	1.1	0.15	1.1	0.20	1.1	0.30	1.1
A_23_P22224	NM_004095	EIF4EBP1	eukaryotic translation initiation factor 4E binding protein 1	1.5	0.02	0.67	-1.1	0.02	-1.5	0.87	1.0	0.99	-1.0	0.88	-1.0	0.42	-1.2	0.12	-1.3	0.79	-1.1
A_33_P3799936	NM_018125	ARHGEF10L	Rho guanine nucleotide exchange factor (GEF) 10-like	1.5	0.00	0.33	-1.1	0.15	-1.1	0.00	-1.3	0.92	-1.0	0.52	1.0	0.00	1.2	0.00	1.2	0.00	1.5
A_24_P86240	NM_198892	BMP2K	BMP2 inducible kinase	1.5	0.00	0.69	1.0	0.11	-1.1	0.27	-1.1	0.94	1.0	0.02	1.2	0.00	1.4	0.00	1.5	0.10	1.2
A_23_P66948	NM_022751	FAM59A	family with sequence similarity 59, member A	1.5	0.00	0.42	-1.1	0.00	-1.3	0.00	-1.5	0.97	1.0	0.80	1.0	0.00	1.2	0.86	-1.0	0.22	1.1
A_24_P945113	NM_000020	ACVRL1	activin A receptor type II-like 1	1.5	0.00	1.00	-1.0	0.17	1.1	0.88	-1.0	0.96	1.0	0.00	1.2	0.00	1.3	0.00	1.5	0.00	1.3
A_33_P3348474	XR_109110	LOC100128840	hypothetical LOC100128840	1.5	0.00	0.27	-1.1	0.03	-1.1	0.00	-1.2	0.89	-1.0	0.02	1.2	0.00	1.4	0.00	1.5	0.01	1.3
A_23_P116037	NM_003273	TM7SF2	transmembrane 7 superfamily member 2	1.5	0.00	0.70	1.0	0.04	1.1	0.00	1.2	0.79	-1.0	0.00	1.2	0.00	1.5	0.00	1.5	0.00	1.5
A_19_P00810205				1.5	0.00	0.24	-1.2	0.00	-1.4	0.00	-1.5	0.98	-1.0	0.71	1.0	0.04	1.2	0.65	1.0	0.31	1.1
A_19_P00319907				1.5	0.00	0.83	1.0	0.00	1.2	0.00	1.5	0.99	1.0	0.02	1.2	0.00	1.5	0.00	1.5	0.00	1.5
A_19_P00317504				1.5	0.00	0.98	1.0	0.12	1.1	0.02	1.1	0.55	-1.2	0.71	1.0	0.05	1.1	0.01	1.1	0.00	1.5
A_19_P00317541				1.5	0.00	0.47	1.1	0.20	1.1	0.00	1.5	0.85	1.1	0.91	1.0	0.07	1.2	0.70	-1.0	0.64	1.1
A_23_P81392	NM_015238	WWC1	WW and C2 domain containing 1	1.5	0.00	0.36	-1.1	0.00	-1.2	0.00	-1.5	0.93	1.0	0.30	-1.1	0.00	-1.3	0.00	-1.3	0.01	-1.2
A_19_P00806947				1.5	0.00	0.17	1.2	0.00	1.3	0.00	1.5	0.82	1.1	0.52	1.1	0.46	1.1	0.24	1.1	0.11	1.2
A_23_P119196	NM_016270	KLF2	Kruppel-like factor 2 (lung)	1.5	0.00	0.50	-1.1	0.03	-1.1	0.00	-1.2	0.73	1.1	0.02	-1.2	0.00	-1.4	0.00	-1.5	0.98	-1.0
A_23_P503182	NM_021962	ABR	active BCR-related gene	1.5	0.00	0.36	-1.1	0.00	-1.3	0.00	-1.5	0.96	1.0	0.89	1.0	0.97	-1.0	0.94	-1.0	0.95	-1.0
A_23_P29773	NM_014398	LAMP3	lysosomal-associated membrane protein 3	1.5	0.00	0.56	1.0	0.22	1.1	0.05	1.1	0.96	1.0	0.19	1.1	0.00	1.3	0.00	1.5	0.71	1.0
A_23_P38167	NM_022036	GPRC5C	G protein-coupled receptor, family C, group 5, member C	1.5	0.00	0.95	1.0	0.16	1.1	0.72	1.0	0.80	-1.0	0.00	1.3	0.00	1.5	0.00	1.5	0.00	1.5
A_19_P00803802				1.5	0.00	0.96	-1.0	0.70	1.0	0.41	1.0	0.83	1.0	0.14	1.1	0.00	1.3	0.00	1.5	0.77	1.0
A_23_P133923	NM_033177	GPANK1	G patch domain and ankyrin repeats 1	1.5	0.00	0.50	1.1	0.79	1.0	0.00	1.5	0.85	1.0	0.96	1.0	0.51	-1.0	0.06	-1.1	0.32	1.1
A_24_P323941	NM_001012971	C20orf106	chromosome 20 open reading frame 106	1.5	0.00	0.69	1.1	0.00	1.5	0.00	1.4	0.97	1.0	0.76	-1.1	0.36	-1.1	0.02	-1.3	0.55	-1.1
A_33_P3244803	NM_001185039	ACOX1	acyl-CoA oxidase 1, palmitoyl	1.5	0.00	0.90	1.0	0.01	1.4	0.00	1.5	1.00	1.0	0.54	1.1	0.02	1.3	0.05	1.2	0.25	1.2
A_19_P00318818				1.5	0.00	0.78	-1.0	0.21	1.1	0.00	1.3	0.76	-1.1	0.43	1.1	0.00	1.2	0.00	1.4	0.00	1.5
A_32_P186474	NM_013277	RACGAP1	Rac GTPase activating protein 1	1.5	0.00	0.29	-1.2	0.00	-1.4	0.00	-1.5	1.00	1.0	0.55	-1.1	0.52	-1.1	0.08	-1.2	0.70	1.1
A_33_P3393766	NM_001130677	C17orf96	chromosome 17 open reading frame 96	1.5	0.00	0.84	1.0	0.02	1.1	0.00	1.2	0.90	1.0	0.08	-1.1	0.00	-1.4	0.00	-1.5	0.01	-1.2
A_24_P280706	NM_006704	SUGT1	SGT1, suppressor of G2 allele of SKP1 (S. cerevisiae)	1.5	0.00	0.80	-1.0	0.15	1.1	0.19	-1.1	0.86	-1.0	0.02	-1.2	0.00	-1.4	0.00	-1.5	0.01	-1.3
A_19_P00812048				1.5	0.00	0.96	1.0	0.33	1.0	0.01	1.1	0.81	-1.0	0.01	1.1	0.00	1.4	0.00	1.5	0.01	1.2
A_23_P253012	NM_017577	GRAMD1C	GRAM domain containing 1C	1.5	0.00	1.00	-1.0	0.60	1.0	0.37	-1.0	0.99	1.0	0.51	1.0	0.00	1.3	0.00	1.5	0.00	1.3
A_24_P194886	NM_015252	EHBP1	EH domain binding protein 1	1.5	0.00	0.59	-1.1	0.01	-1.3	0.00	-1.5	0.94	1.0	0.18	-1.2	0.86	1.0	0.66	1.0	0.88	1.0
A_23_P20615	NM_006401	ANP32B	acidic (leucine-rich) nuclear phosphoprotein 32 family, member B	1.5	0.00	0.57	-1.1	0.05	-1.3	0.89	1.0	0.97	-1.0	0.39	-1.2	0.04	-1.3	0.00	-1.5	0.37	-1.2
A_33_P3359724		C1orf194	chromosome 1 open reading frame 194	1.5	0.00	0.96	-1.0	0.89	1.0	0.09	1.1	0.75	-1.1	0.04	1.2	0.00	1.3	0.00	1.5	0.09	1.2
A_23_P62115	NM_003254	TIMP1	TIMP metallopeptidase inhibitor 1	1.5	0.00	0.69	1.0	0.53	1.0	0.11	1.1	0.76	-1.0	0.00	1.2	0.00	1.3	0.00	1.5	0.27	1.1
A_33_P3212172	NM_024798	SNX22	sorting nexin 22	1.5	0.00	0.61	-1.0	0.00	1.2	0.00	1.2	0.83	-1.0	0.00	1.2	0.00	1.5	0.00	1.5	0.00	1.4
A_23_P24987	NM_005981	TSPAN31	tetraspanin 31	1.5	0.00	0.88	-1.0	0.53	1.0	0.90	1.0	0.75	-1.1	0.26	1.1	0.00	1.3	0.00	1.5	0.81	1.0
A_23_P146456	NM_001333	CTSL2	cathepsin L2	1.5	0.00	0.55	1.1	0.01	1.2	0.00	1.3	0.97	-1.0	0.05	1.2	0.00	1.4	0.00	1.4	0.00	1.5
A_23_P151895	NM_003613	CILP	cartilage intermediate layer protein, nucleotide pyrophosphohydrolase	1.5	0.00	0.93	-1.0	0.46	1.0	0.95	-1.0	0.85	-1.0	0.01	1.1	0.00	1.4	0.00	1.5	0.00	1.3
A_23_P80156	NM_206962	PRMT2	protein arginine methyltransferase 2	1.5	0.00	0.90	1.0	0.35	1.1	0.06	1.1	0.82	1.0	0.04	1.2	0.00	1.4	0.00	1.5	0.00	1.3
A_24_P113131	NM_004758	BZRAP1	benzodiazapine receptor (peripheral) associated protein 1	1.5	0.00	0.92	1.0	0.46	1.1	0.14	-1.2	0.85	1.1	0.02	1.4	0.00	1.5	0.00	1.5	0.69	1.1
A_33_P3233869				1.5	0.00	0.80	1.0	0.83	1.0	0.44	1.1	1.00	1.0	0.59	1.0	0.00	1.3	0.00	1.5	0.00	1.3
A_33_P3287825	NM_022742	CCDC136	coiled-coil domain containing 136	1.5	0.00	0.59	1.0	0.00	1.2	0.00	1.3	0.87	-1.0	0.03	1.1	0.00	1.4	0.00	1.5	0.00	1.5
A_33_P3408054	NR_003132	HSP90AB2P	heat shock protein 90kDa alpha (cytosolic), class B member 2, pseud	1.5	0.00	0.45	1.1	0.08	1.1	0.04	1.2	0.83	1.1	0.01	-1.3	0.00	-1.4	0.00	-1.5	0.16	-1.2
A_19_P00322542				1.5	0.00	0.51	1.1	0.36	1.1	0.00	1.5	0.78	1.1	0.71	-1.0	0.59	-1.0	0.05	-1.1	0.40	-1.1
A_23_P86079	NM_001145210	LOC441869	hypothetical protein LOC441869	1.5	0.00	0.89	-1.0	0.87	-1.0	0.87	1.0	0.87	-1.1	0.67	-1.1	0.03	1.2	0.00	1.3	0.01	1.5
A_33_P3402035	NM_004295	TRAF4	TNF receptor-associated factor 4	1.5	0.00	0.48	1.1	0.00	1.2	0.00	1.3	0.98	1.0	0.27	1.1	0.00	1.2	0.00	1.5	0.02	1.2
A_33_P3251148	NM_000714	TSPO	translocator protein (18kDa)	1.5	0.00	0.96	-1.0	0.46	1.0	0.27	1.0	0.98	-1.0	0.00	1.2	0.00	1.4	0.00	1.5	0.00	1.2
A_23_P41888	NM_153373	AGXT2L2	alanine-glyoxylate aminotransferase 2-like 2	1.5	0.00	0.82	-1.0	0.45	-1.0	0.96	1.0	0.99	-1.0	0.02	1.2	0.00	1.4	0.00	1.5	0.06	1.2
A_23_P327551	NM_130808	CPNE4	copine IV	1.5	0.00	0.27	-1.1	0.00	-1.2	0.00	-1.4	1.00	-1.0	0.07	1.1	0.00	1.3	0.00	1.5	0.03	1.2
A_32_P456537	NM_030752	TCP1	t-complex 1	1.5	0.00	0.86	1.0	0.40	1.0	0.85	1.0	0.96	-1.0	0.01	-1.2	0.00	-1.4	0.00	-1.5	0.00	-1.3
A_33_P3364651				1.5	0.00	0.81	-1.1	0.61	-1.1	0.00	1.5	0.88	1.1	0.86	1.0	0.70	1.1	0.83	-1.0	0.95	1.0
A_23_P134167	NM_020381	PDSS2	prenyl (decaprenyl) diphosphate synthase, subunit 2	1.5	0.00	0.48	-1.1	0.00	-1.4	0.00	-1.5	0.96	1.0	0.80	1.0	0.93	1.0	0.27	-1.1	0.86	1.0
A_32_P46840		LOC729680	hypothetical protein LOC729680	1.5	0.00	1.00	1.0	0.03	1.2	0.03	1.2	0.93	1.0	0.46	-1.1	0.00	-1.4	0.00	-1.5	0.01	-1.4
A_33_P3369034	NM_001170714	BCAR1	breast cancer anti-estrogen resistance 1	1.5	0.00	0.74	1.0	0.09	1.1	0.02	1.1	0.81	-1.0	0.00	1.1	0.00	1.4	0.00	1.5	0.00	1.2
A_19_P00802201				1.5	0.00	0.28	-1.1	0.00	-1.4	0.00	-1.5	0.99	-1.0	0.79	1.0	0.01	1.2	0.46	1.1	0.17	1.2
A_33_P3413048	NM_017514	PLXNA3	plexin A3	1.5	0.00	0.60	1.1	0.05	1.2	0.00	1.5	0.96	1.0	0.45	1.1	0.46	1.1	0.11	1.1	0.73	1.0
A_33_P3231542	NM_006885	ZFHX3	zinc finger homeobox 3	1.5	0.00	0.63	-1.1	0.00	-1.3	0.00	-1.5	0.91	1.0	0.93	1.0	0.39	-1.1	0.02	-1.2	0.76	-1.0
A_23_P257578	NM_001035235	SRA1	steroid receptor RNA activator 1	1.5	0.00	0.23	1.1	0.00	1.2	0.00	1.2	0.81	-1.0	0.00	1.2	0.00	1.4	0.00	1.5	0.00	1.3
A_23_P112159	NM_012154	EIF2C2	eukaryotic translation initiation factor 2C, 2	1.5	0.00	0.83	-1.0	0.65	-1.0	0.07	-1.1	0.92	-1.0	0.00	-1.2	0.00	-1.5	0.00	-1.5	0.00	-1.3
A_23_P46356	NM_024575	TNFAIP8L2	tumor necrosis factor, alpha-induced protein 8-like 2	1.5	0.00	0.75	-1.0	0.47	-1.0	0.10	1.1	0.95	1.0	0.01	1.2	0.00	1.5	0.00	1.5	0.08	1.2
A_23_P125643	NM_001031739	ASB9	ankyrin repeat and SOCS box containing 9	1.5	0.00	0.99	-1.0	0.63	1.0	0.75	1.0	0.84	1.0	0.00	1.2	0.00	1.4	0.00	1.5	0.00	1.4
A_23_P423482	NM_152450	FAM81A	family with sequence similarity 81, member A	1.5	0.00	0.87	1.0	0.06	1.1	0.50	1.0	0.95	1.0	0.21	-1.1	0.00	-1.3	0.00	-1.5	0.02	-1.2
A_32_P190049	NM_001099678	LRRC58	leucine rich repeat containing 58	1.5	0.00	0.36	1.1	0.53	1.1	0.51	1.1	0.78	1.1	0.14	-1.2	0.00	-1.4	0.00	-1.5	0.04	-1.3
A_24_P192727		KAZALD1	Kazal-type serine peptidase inhibitor domain 1	1.5	0.00	0.43	-1.1	0.43	1.0	0.03	1.1	0.94	1.0	0.41	-1.1	0.01	-1.1	0.00	-1.5	0.56	-1.0
A_33_P3381751	NM_003253	TIAM1	T-cell lymphoma invasion and metastasis 1	1.5	0.00	0.67	-1.0	0.62	-1.0	0.00	-1.3	1.00	1.0	0.01	1.2	0.00	1.5	0.00	1.4	0.01	1.3
A_33_P3341234	NM_003344	UBE2H	ubiquitin-conjugating enzyme E2H	1.5	0.00	0.57	-1.1	0.01	-1.2	0.00	-1.3	0.87	1.0	0.37	1.1	0.00	1.4	0.00	1.5	0.00	1.3
A_33_P3323298	NM_002228	JUN	jun proto-oncogene	1.5	0.00	0.36	-1.1	0.04	-1.2	0.00	-1.5	0.73	1.1	0.45	1.1	0.13	1.1	0.01	1.2	0.38	1.1
A_23_P500614	NM_001243	TNFRSF8	tumor necrosis factor receptor superfamily, member 8	1.5	0.00	0.28	-1.1	0.00	-1.2	0.00	-1.5	0.96	-1.0	0.42	1.1	0.03	1.1	0.00	1.3	0.94	1.0
A_23_P65481	NM_007110	TEP1	telomerase-associated protein 1	1.5	0.00	0.54	1.1	0.99	1.0	0.28	1.1	0.80	1.0	0.02	1.2	0.00	1.4	0.00	1.5	0.00	1.5
A_23_P142447	NM_012335	MYO1F	myosin IF	1.5	0.00	0.65	1.0	0.37	1.0	0.67	-1.0	0.99	1.0	0.07	1.1	0.00	1.4	0.00	1.5	0.00	1.4
A_33_P3255274	NM_017623	CNNM3	cyclin M3	1.5	0.00	0.20	1.1	0.01	1.2	0.00	1.5	0.84	1.0	0.77	1.0	0.03	-1.2	0.08	-1.1	0.63	-1.1
A_33_P3346826	NM_001012633	IL32	interleukin 32	1.5	0.00	0.61	1.0	0.38	1.0	0.07	1.1	0.82	-1.0	0.01	1.1	0.00	1.3	0.00	1.5	0.22	1.1
A_33_P3222977	NM_144674	TEKT5	tektin 5	1.5	0.00	0.52	-1.1	0.38	-1.1	0.84	-1.0	0.79	-1.1	0.41	1.1	0.01	1.2	0.00	1.5	0.01	1.3
A_23_P55319	NM_004475	FLOT2	flotillin 2	1.5	0.00	0.83	1.0	0.81	1.0	0.60	1.0	0.74	-1.1	0.00	1.2	0.00	1.5	0.00	1.5	0.01	1.2
A_23_P329870	NM_024599	RHBDF2	rhomboid 5 homolog 2 (Drosophila)	1.5	0.00	0.43	-1.1	0.00	1.2	0.54	1.0	0.95	-1.0	0.06	1.1	0.00	1.3	0.00	1.5	0.00	1.4
A_19_P00321886				1.5	0.00	0.51	1.1	0.03	-1.2	0.00	-1.4	0.86	1.0	0.04	1.2	0.00	1.3	0.00	1.5	0.39	1.1
A_23_P18452	NM_002416	CXCL9	chemokine (C-X-C motif) ligand 9	1.5	0.00	0.72	1.0	0.49	1.0	0.89	-1.0	0.77	1.1	0.79	1.0	0.74	-1.0	0.00	1.5	0.03	-1.2
A_23_P163467	NM_207380	C15orf52	chromosome 15 open reading frame 52	1.5	0.00	0.25	1.2	0.49	1.1	0.28	1.1	0.81	1.1	0.04	1.2	0.00	1.5	0.00	1.5	0.01	1.4
A_19_P00803803				1.5	0.00	0.73	1.1	0.07	1.2	0.00	1.5	0.81	1.1	0.81	-1.0	0.45	-1.1	0.08	-1.2	0.58	1.1
A_23_P313632	NM_178155	FUT8	fucosyltransferase 8 (alpha (1,6) fucosyltransferase)	1.5	0.00	0.51	-1.1	0.01	-1.2	0.00	-1.5	0.99	-1.0	0.23	1.1	0.00	1.3	0.00	1.4	0.06	1.2
A_23_P57588	NM_016426	GTSE1	G-2 and S-phase expressed 1	1.5	0.00	0.29	-1.2	0.00	-1.5	0.00	-1.5	0.84	-1.1	0.88	1.0	0.29	1.1	0.80	-1.0	0.38	1.1
A_33_P3209960	NM_153819	RASGRP2	RAS guanyl releasing protein 2 (calcium and DAG-regulated)	1.5	0.00	0.89	1.0	0.88	1.0	0.65	1.0	1.00	1.0	0.00	1.2	0.00	1.4	0.00	1.5	0.00	1.3
A_33_P3398912	NM_017585	SLC2A6	solute carrier family 2 (facilitated glucose transporter), member 6	1.5	0.00	0.90	1.0	0.36	1.1	0.00	1.2	0.95	1.0	0.01	1.2	0.00	1.3	0.00	1.5	0.03	1.2
A_23_P34827	NM_020897	HCN3	hyperpolarization activated cyclic nucleotide-gated potassium channe	1.5	0.00	0.49	1.1	0.12	1.1	0.00	1.5	0.79	1.1	0.09	1.2	0.05	1.2	0.04	1.2	0.12	1.2
A_23_P206724	NM_175617	MT1E	metallothionein 1E	1.5	0.00	0.85	1.0	0.01	1.1	0.00	1.5	0.93	-1.0	0.09	1.1	0.00	1.2	0.02	1.1	0.31	1.1

[a] False Discovery Rate adjusted P value; [b] Fold Change

Supplementary Table 8. BMD modeling parameters for the lowest $BMDL_{10}$ values at the 10th percentile of all genes in a pathway for different approaches for POD derivation.

Tissue	Approach	Time point	PA Pathway	# probes with BI	BMD*	BMDL*	BMD List	BMDL List	Fit pValue List	Fit Log(likelihood) List	AIC List
Liver	Toxicogenomics-key event preceeding the committed step	3d×24h	Cell Cycle: G1/S Checkpoint Regulation	18	8.1	1.0	4.32357;8.45322	3.0E-13;1.95454E-5;1.417514;2.43886;38.4101;39.3635	0.2279;0.2773;0.59	29.57485;0.636575;37.4	-51.149702;4.72685;-64.915563;-27.74456;-30.744993;-73.197179;-57.409112;-82.468373;-32.625013;-74.02373;-51.21817;-87.739441;-44.522067;-80.612486;-67.720257;-40.91771;-51.004579;-38.029198;-61.082766
	Toxicogenomics-lowest MOA-associated pathway	3d×24h	Cell Cycle: G1/S Checkpoint Regulation	18	8.1	1.0	4.32357;8.45322	3.0E-13;1.95454E-5;1.417514;2.43886;38.4101;39.3635	0.2279;0.2773;0.59	29.57485;0.636575;37.4	-51.149702;4.72685;-64.915563;-27.74456;-30.744993;-73.197179;-57.409112;-82.468373;-32.625013;-74.02373;-51.21817;-87.739441;-44.522067;-80.612486;-67.720257;-40.91771;-51.004579;-38.029198;-61.082766
	Toxicogenomics-Lowest pathway#	3d×24h	Notch Signaling	7	0.3	0.2	0.273002;0.27305	0.157526;0.157526;22.6934;35.5455;37.159;48.6795;50.	0.2058;0.4697;0.624	48.187644;37.296784;26.	-88.375287;-66.593587;-44.68025;-17.923928;-73.025284;-68.929274;-83.584596
Lung	Toxicogenomics-key event preceeding the committed step	28d×3d	Cell Cycle: G2/M DNA Damage Checkpoint Regulation	5	14.8	3.7	11.9375;19.1484;2	3.83754E-5;9.17802;10.7244;37.0056;37.7794	0.3079;0.2434;0.13	20.924583;26.886744;22	-33.849167;-45.773489;-37.446109;-61.039866;-11.571176
	Toxicogenomics-lowest MOA-associated pathway	28d×3d	Cell Cycle: G2/M DNA Damage Checkpoint Regulation	5	14.8	3.7	11.9375;19.1484;2	3.83754E-5;9.17802;10.7244;37.0056;37.7794	0.3079;0.2434;0.13	20.924583;26.886744;22	-33.849167;-45.773489;-37.446109;-61.039866;-11.571176
	Toxicogenomics-Lowest pathway#	28d×3d	Cellular Effects of Sildenafil (Viagra)	9	15.7	2.1	12.9776;16.4092;2	4.67506E-5;2.64593;8.37627;22.6673;25.8281;27.8348;3	0.6569;0.5153;0.106	24.235361;19.682873;35.	-40.470723;-33.365746;-63.647724;-33.405014;-26.88438;-34.978852;-36.046555;-50.193724;-65.227503
Forestomach	Toxicogenomics-key event preceeding the committed step	28d×3d	p53 Signaling	40	11.4	7.4	7.50405;10.9997;1	5.22675;7.20876;7.23824;7.32022;7.40958;7.47367;7.900	0.1434;0.3481;0.16	23.276717;17.382053;23.	-38.553433;-26.764106;-38.793848;-57.877971;-44.083418;-40.018496;-34.660842;-45.077534;-25.686571;-37.635487;-41.852786;-31.508078;-45.893305;-57.833543;-40.434633;-46.59345;-56.988943;-25.699202;-26.389448;-71.818845;-49.936767;-19.253196;-26.514993;-48.
	Toxicogenomics-lowest MOA-associated pathway	28d×3d	p53 Signaling	40	11.4	7.4	7.50405;10.9997;1	5.22675;7.20876;7.23824;7.32022;7.40958;7.47367;7.900	0.1434;0.3481;0.16	23.276717;17.382053;23.	-38.553433;-26.764106;-38.793848;-57.877971;-44.083418;-40.018496;-34.660842;-45.077534;-25.686571;-37.635487;-41.852786;-31.508078;-45.893305;-57.833543;-40.434633;-46.59345;-56.988943;-25.699202;-26.389448;-71.818845;-49.936767;-19.253196;-26.514993;-48.
	Toxicogenomics-Lowest pathway#	28d×3d	Phenylalanine Degradation IV (Mammalian, via Side Chain)	6	16.1	4.5	15.7734;16.4848;1	5.39414E-7;8.98744;9.60812;37.972;38.0416;54.9654	0.6063;0.7442;0.329	10.192645;4.420712;-3.2	-12.385291;-0.841424;12.56976;-26.368895;-24.087597;-39.64083

* in mg BaP/kg bw per day

[a]Similar to Thomas et al., (2011) but examined BMD/BMDLs at the 10th percentile rather than median.