

Supplemental 2. Transcripts associated with canonical signaling in colon of mice on HFD and tumors (RD and HFD)

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Genes in the Actin Cytoskeleton Signaling network

	HFD	RD Tumor	HFD Tumor
MYH1	4307.538411	35805.16377	15250.79832
MYL3	1564.642448	7166.376877	5937.24138
MYH8	839.0208581	5621.819868	2426.259307
MYL1	439.3939759	2159.017074	1701.994843
TTN	377.373933	1768.872127	1125.822355
MYLPF	356.2001865	2006.435997	1662.390202
MYLK2	295.6486744	1541.244553	1074.337374
ACTA1	163.6772361	1379.557427	816.8961497
Actn3	133.0064413	1457.571655	580.4597267
ACTN2	89.13320914	380.3201212	367.8456673
MYH2	56.23976388	201.4468163	134.4402355
ACTC1	35.65482721	63.68744174	64.07355905
LBP	2.941660319	N/A	N/A
VAV2	2.278585974	2.168885734	2.496748417
MSN	2.087470899	1.733930628	N/A
PDGFC	2.05022064	N/A	N/A
MYH10	1.932362693	N/A	N/A
WAVE1	1.914150744	N/A	N/A
ARHGAP24	1.767017579	N/A	N/A
MRAS	1.67414794	1.551592946	N/A
MYL4	1.606805633	N/A	N/A
PIP4K2B	1.56280759	2.66768712	N/A
GSN	1.541649	N/A	N/A
MYL12A	-1.560496049	-1.642814646	N/A
MAP2K2	-1.657151109	N/A	N/A
IQGAP2	-1.828621998	-1.750373949	N/A
MYH14	-2.102744413	-2.025393502	N/A

Genes in the Acute Phase Response Signaling network

	HFD	RD Tumor	HFD Tumor
CRABP2	18.68076993	59.71396224	76.3452183
KLKB1	5.620550986	N/A	N/A
C3	3.698927077	N/A	N/A
SERPINF1	3.445991114	N/A	N/A
MAPK12	3.150189309	N/A	N/A
LBP	2.941660319	N/A	N/A
OSMR	2.812428732	3.962606622	N/A
SERPINA1	2.786995029	N/A	N/A
CP	2.717530627	8.554949545	4.744353959
RBP1	2.463345076	7.005940516	5.442109606
MAPK11	2.160939274	2.730003606	2.68284995
SERPING1	1.927781446	N/A	N/A
C1R	1.884030064	N/A	N/A
IL6ST	1.815126204	N/A	N/A
C1S	1.762957126	N/A	1.382969688
AKT3	1.725946331	N/A	N/A
MRAS	1.67414794	1.551592946	N/A
C2	1.559739025	N/A	N/A
HMOX1	1.50676748	4.963712358	13.44581032
TRADD	-1.595669048	-2.069297469	N/A
MAP2K2	-1.657151109	N/A	N/A
HNF1A	-1.815941748	N/A	-2.484007063
IL18	-1.896161675	-2.68301863	-2.712724323
RBP2	-4.776555038	-4.615634752	-4.090090097

Genes in the Aryl Hydrocarbon Receptor Signaling network

	HFD	RD Tumor	HFD Tumor
HSPB3	52.56124714	180.3767026	188.7976066
GSTA5	9.068535486	11.70503204	12.13031267
RXRG	6.325906996	26.28815742	14.03753433
NR2F1	3.174330914	N/A	N/A
TGFB3	2.756157873	N/A	N/A
HSPB2	2.456454696	N/A	N/A
ALDH1A3	2.306523511	24.20355967	N/A
ALDH1A2	1.960732067	N/A	N/A
RARG	1.927530874	3.583506903	2.604100271
TGM2	1.632055641	1.503931904	N/A
ALDH1L1	-1.872209434	N/A	N/A

MGST2	-1.962013234	-2.716037883	-2.168475056
ALDH1B1	-2.100438067	-2.698765511	N/A
MGST3	-2.247561695	-2.172887585	-1.902538081
MGST1	-2.435155427	-1.747449084	N/A

Genes in the Corticotropin Releasing Hormone Signaling network

	HFD	RD Tumor	HFD Tumor
KRT1	155.6578958	137.4871982	217.0247012
CALML5	54.34243274	58.85076453	133.6584883
CRHR2	17.46626493	69.50992722	56.3698328
MAPK12	3.150189309	N/A	N/A
NOS3	2.629812043	2.912581135	N/A
GUCY1A3	2.44601147	N/A	N/A
MAPK11	2.160939274	2.730003606	2.68284995
GUCY1B3	2.002590601	N/A	N/A
ADCY1	2.002309478	5.0897452	2.46463109
PRKD1	1.955317237	3.537227403	3.387659723
GLI3	1.822279519	N/A	N/A
GNAI1	1.778362153	N/A	N/A
PRKAR2B	1.760011412	N/A	N/A
NOS1	1.726275798	N/A	N/A
Gli2	1.724655373	N/A	N/A
Gao	1.714072025	N/A	N/A
NPR2	1.632115691	N/A	N/A
PRKD3	1.616898714	N/A	N/A
ADCY3	1.530737594	N/A	N/A
MAP2K2	-1.657151109	N/A	N/A
GUCY2C	-1.930999676	N/A	N/A

Genes in the Fcy Receptor-mediated Phagocytosis in Macrophages and Mo

	HFD	RD Tumor	HFD Tumor
ACTA1	163.6772361	1379.557427	816.8961497
ACTC1	35.65482721	63.68744174	64.07355905
VAV2	2.278585974	2.168885734	2.496748417
MYO5A	2.193359812	1.698944055	N/A
PLD2	1.994880038	3.564539687	2.612046356
PRKD1	1.955317237	3.537227403	3.387659723
AKT3	1.725946331	N/A	N/A
FYN	1.660659733	N/A	1.555167112
PRKD3	1.616898714	N/A	N/A
HMOX1	1.50676748	4.963712358	13.44581032
PAK1	-1.246108261	N/A	N/A

Genes in the Glioblastoma Multiforme Signaling network

	HFD	RD Tumor	HFD Tumor
WNT10A	41.50427945	351.1066652	278.002158
WNT7B	9.583331046	80.7389937	25.91158235
WNT10B	8.417768696	N/A	6.668472985
WNT9A	2.690120314	N/A	N/A
PDGFRA	2.193813668	N/A	N/A
IGF1	2.139962224	N/A	N/A
PDGFC	2.05022064	N/A	N/A
IGF2	2.006812595	N/A	N/A
RHOJ	1.866305158	N/A	N/A
FZD7	1.842494732	N/A	N/A
AKT3	1.725946331	N/A	N/A
FZD2	1.722176026	N/A	N/A
MRAS	1.67414794	1.551592946	N/A
RND2	1.552933784	N/A	N/A
MAP2K2	-1.657151109	N/A	N/A

Genes in the HMGB1 Signaling network

	HFD	RD Tumor	HFD Tumor
PLAT	3.209037358	14.58254543	10.47598852
MAPK12	3.150189309	N/A	N/A
TGFB3	2.756157873	N/A	N/A
IL12A	2.300259124	N/A	N/A
VCAM1	2.237241351	N/A	N/A
MAPK11	2.160939274	2.730003606	2.68284995
RHOJ	1.866305158	N/A	N/A
AKT3	1.725946331	N/A	N/A
MRAS	1.67414794	1.551592946	N/A
RND2	1.552933784	N/A	N/A
MAP2K2	-1.657151109	N/A	N/A

IL18	-1.896161675	-2.68301863	-2.712724323
Genes in the IL-6 Signaling network	HFD	RD Tumor	HFD Tumor
HSPB3	52.56124714	180.3767026	188.7976066
MAPK12	3.150189309	N/A	N/A
LBP	2.941660319	N/A	N/A
HSPB2	2.456454696	N/A	N/A
MAPK11	2.160939274	2.730003606	2.68284995
IL18RAP	2.048912266	N/A	3.065537038
IL6ST	1.815126204	N/A	N/A
COL1A1	1.790350757	2.875711265	3.246687324
AKT3	1.725946331	N/A	N/A
MRAS	1.67414794	1.551592946	N/A
MAP4K4	1.52346231	2.331541084	2.008185627
MAP2K2	-1.657151109	N/A	N/A
IL18	-1.896161675	-2.68301863	-2.712724323
MDR1	-4.503771745	-4.777898666	-7.053652822
Genes in the IL-8 Signaling network	HFD	RD Tumor	HFD Tumor
MMP9	3.686161946	15.74620289	N/A
MAPK12	3.150189309	N/A	N/A
TEK	2.970415616	1.791390164	2.845568196
FLT4	2.585086536	N/A	2.511563228
FIGF	2.28561325	N/A	N/A
VCAM-1	2.237241351	N/A	N/A
PDGFC	2.05022064	N/A	N/A
IRAK3	2.00529712	N/A	N/A
PLD2	1.994880038	3.564539687	2.612046356
ANGPT1	1.959195281	N/A	N/A
FLT1	1.957766528	2.664241614	N/A
PRKD1	1.955317237	3.537227403	3.387659723
KDR	1.946646509	2.592358028	2.772586664
RHOJ	1.866305158	N/A	N/A
GNAI1	1.778362153	N/A	N/A
GNG11	1.771306009	N/A	N/A
AKT3	1.725946331	N/A	N/A
ANGPT2	1.683814696	3.877610015	3.315038757
MRAS	1.67414794	1.551592946	N/A
PRKD3	1.616898714	N/A	N/A
RND2	1.552933784	N/A	N/A
NIK	1.52346231	2.331541084	2.008185627
HMOX1	1.50676748	4.963712358	13.44581032
LASP-1	-1.504037232	-1.343419199	N/A
MAP2K2	-1.657151109	N/A	N/A
Genes in the ILK Signaling network	HFD	RD Tumor	HFD Tumor
MYH1	4307.538411	35805.16377	15250.79832
MYL3	1564.642448	7166.376877	5937.24138
MYH8	839.0208581	5621.819868	2426.259307
MYL1	439.3939759	2159.017074	1701.994843
ACTA1	163.6772361	1379.557427	816.8961497
Actn3	133.0064413	1457.571655	580.4597267
ACTN2	89.13320914	380.3201212	367.8456673
MYH2	56.23976388	201.4468163	134.4402355
ACTC1	35.65482721	63.68744174	64.07355905
MMP9	3.686161946	15.74620289	N/A
MAPK12	3.150189309	N/A	N/A
ITGB8	2.879022915	3.003534719	3.323557182
VIM	2.337691034	N/A	N/A
FIGF	2.28561325	N/A	N/A
HIF1A	2.244422562	N/A	N/A
PDGFC	2.05022064	N/A	N/A
MYH10	1.932362693	N/A	N/A
RHOJ	1.866305158	N/A	N/A
PPP2R2C	1.847366778	N/A	N/A
AKT3	1.725946331	N/A	N/A
MYL4	1.606805633	N/A	N/A
ILK	1.585459639	N/A	N/A
RND2	1.552933784	N/A	N/A
PARVA	1.517740935	N/A	N/A

DSP	-1.420559217	N/A	N/A
MYH14	-2.102744413	-2.025393502	N/A
Genes in the Intrinsic Prothrombin Activation Pathway network			
KLKB1	5.620550986	N/A	N/A
THBD	2.103092984	N/A	2.592414492
FXIIIa	1.978051549	N/A	N/A
COL1A2	1.962741934	N/A	2.011004118
COL1A1	1.790350757	2.875711265	3.246687324
COL5A3	1.542141501	1.834766449	N/A
COL3A1	1.51550946	N/A	2.052609231
Genes in the Leukocyte Extravasation Signaling network			
ACTA1	163.6772361	1379.557427	816.8961497
Actn3	133.0064413	1457.571655	580.4597267
ACTN2	89.13320914	380.3201212	367.8456673
ACTC1	35.65482721	63.68744174	64.07355905
MMP9	3.686161946	15.74620289	N/A
BMX	3.407872487	N/A	N/A
CLDN11	3.271603105	N/A	N/A
CLDN5	3.207753096	1.947510993	N/A
MAPK12	3.150189309	N/A	N/A
ITK	2.923567788	N/A	N/A
MMP16	2.879271803	N/A	N/A
RASGRP1	2.656645802	N/A	N/A
SPN	2.603489237	N/A	2.940948253
VAV2	2.278585974	2.168885734	2.496748417
VCAM1	2.237241351	N/A	N/A
MAPK11	2.160939274	2.730003606	2.68284995
CDH5	2.124471964	3.593352155	N/A
JAM2	2.099938248	N/A	N/A
MSN	2.087470899	1.733930628	N/A
RASSF5	2.046998731	2.660938247	N/A
ARHGAP6	2.036627299	N/A	N/A
TIMP3	2.012473896	N/A	N/A
PRKD1	1.955317237	3.537227403	3.387659723
MMP28	1.903595253	5.729000931	N/A
CXCL12	1.873782365	N/A	N/A
PECAM1	1.851336064	2.266062171	N/A
MMP19	1.834898852	N/A	N/A
TIMP4	1.827897856	N/A	N/A
GNAI1	1.778362153	N/A	N/A
TIMP2	1.762576446	N/A	N/A
DLC1	1.723214713	N/A	N/A
THY1	1.662458434	N/A	N/A
MMP11	1.624545706	N/A	1.724669785
PRKD3	1.616898714	N/A	N/A
CLDN23	-1.632217441	N/A	N/A
MAP2K2	-1.657151109	N/A	N/A
MMP15	-1.657544947	-1.567595223	N/A
Genes in the NF-κB Signaling network			
NTRK3	4.874433594	N/A	N/A
NTRK2	3.321895708	N/A	N/A
FLT4	2.585086536	N/A	2.511563228
NGF	2.267318433	N/A	N/A
PDGFRA	2.193813668	N/A	N/A
IRAK-M	2.00529712	N/A	N/A
FLT1	1.957766528	2.664241614	N/A
KDR	1.946646509	2.592358028	2.772586664
FGFR1	1.829401943	N/A	N/A
AKT3	1.725946331	N/A	N/A
TGFBR3	1.712008298	N/A	N/A
MRAS	1.67414794	1.551592946	N/A
LCK	1.591218231	N/A	N/A
MAP4K4	1.52346231	2.331541084	2.008185627
TRADD	-1.595669048	-2.069297469	N/A
ABIN-1	-1.800511496	-2.413814559	-2.217899331
IL18	-1.896161675	-2.68301863	-2.712724323

Genes in the RhoA Signaling network

	HFD	RD Tumor	HFD Tumor
MYL3	1564.642448	7166.376877	5937.24138
MYL1	439.3939759	2159.017074	1701.994843
TTN	377.373933	1768.872127	1125.822355
MYLPF	356.2001865	2006.435997	1662.390202
MYLK2	295.6486744	1541.244553	1074.337374
ACTA1	163.6772361	1379.557427	816.8961497
ACTC1	35.65482721	63.68744174	64.07355905
CDC42EP2	2.896488607	3.578366277	4.866032446
LPAR4	2.206134794	N/A	N/A
IGF-1	2.139962224	N/A	N/A
MSN	2.087470899	1.733930628	N/A
CDC42EP3	2.068271635	N/A	N/A
ARHGAP6	2.036627299	N/A	N/A
WAVE	1.914150744	N/A	N/A
DLC1	1.723214713	N/A	N/A
NRP2	1.676648408	N/A	N/A
MYL4	1.606805633	N/A	N/A
PIP4K2B	1.56280759	2.66768712	N/A
MYL12A	-1.560496049	-1.642814646	N/A

Genes in the Signaling by Rho Family GTPases network

	HFD	RD Tumor	HFD Tumor
MYL3	1564.642448	7166.376877	5937.24138
MYL1	439.3939759	2159.017074	1701.994843
MYLPF	356.2001865	2006.435997	1662.390202
ACTA1	163.6772361	1379.557427	816.8961497
ACTC1	35.65482721	63.68744174	64.07355905
CDH15	20.96366567	73.45401915	37.7572348
MAPK12	3.150189309	N/A	N/A
GNA15	2.99913869	7.63033053	N/A
CDC42EP2	2.896488607	3.578366277	4.866032446
Vimentin	2.337691034	N/A	N/A
CDH13	2.308485022	3.023714764	N/A
CDH4	2.262962933	N/A	N/A
ARHGEF4	2.128486935	4.640250362	N/A
CDH5	2.124471964	3.593352155	N/A
MSN	2.087470899	1.733930628	N/A
CDC42EP3	2.068271635	N/A	N/A
WAVE	1.914150744	N/A	N/A
ARHGEF10	1.880804505	N/A	N/A
RHOJ	1.866305158	N/A	N/A
ARHGEF15	1.860784442	1.403319371	N/A
ARHGEF17	1.791957629	1.963082251	N/A
GNAI1	1.778362153	N/A	N/A
GNG11	1.771306009	N/A	N/A
CDH11	1.744706016	N/A	N/A
GNAO1	1.714072025	N/A	N/A
MRAS	1.67414794	1.551592946	N/A
MYL4	1.606805633	N/A	N/A
PIP4K2B	1.56280759	2.66768712	N/A
RND2	1.552933784	N/A	N/A
MYL12A	-1.560496049	-1.642814646	N/A
CDH17	-1.600276982	N/A	N/A
MAP2K2	-1.657151109	N/A	N/A
GNA11	-1.869608092	-2.037477814	-2.478881882
ARHGEF16	-1.89776126	-1.748195852	-2.074669938

Genes in the VEGF Signaling network

	HFD	RD Tumor	HFD Tumor
ACTA1	163.6772361	1379.557427	816.8961497
Actn3	133.0064413	1457.571655	580.4597267
ACTN2	89.13320914	380.3201212	367.8456673
ACTC1	35.65482721	63.68744174	64.07355905
eNOS	2.629812043	2.912581135	N/A
FLT4	2.585086536	N/A	2.511563228
FIGF	2.28561325	N/A	N/A
HIF1A	2.244422562	N/A	N/A
PDGFC	2.05022064	N/A	N/A
FLT1	1.957766528	2.664241614	N/A
KDR	1.946646509	2.592358028	2.772586664
AKT3	1.725946331	N/A	N/A

MRAS	1.67414794	1.551592946	N/A
EIF2S2	-1.602329133	-1.73288374	-1.613984584
MAP2K2	-1.657151109	N/A	N/A

Genes in the Role of Wnt/GSK-3 β Signaling in the Pathogenesis of Influenz: HFD

	HFD	RD Tumor	HFD Tumor
WNT10A	41.50427945	351.1066652	278.002158
WNT7B	9.583331046	80.7389937	25.91158235
WNT10B	8.417768696	N/A	6.668472985
WNT9A	2.690120314	N/A	N/A
FZD7	1.842494732	N/A	N/A
FZD2	1.722176026	N/A	N/A

Genes in the Tight Junction Signaling network

	HFD	RD Tumor	HFD Tumor
MYH1	4307.538411	35805.16377	15250.79832
MYL3	1564.642448	7166.376877	5937.24138
MYH8	839.0208581	5621.819868	2426.259307
MYL1	439.3939759	2159.017074	1701.994843
ACTA1	163.6772361	1379.557427	816.8961497
MYH2	56.23976388	201.4468163	134.4402355
ACTC1	35.65482721	63.68744174	64.07355905
CLDN11	3.271603105	N/A	N/A
CLDN5	3.207753096	1.947510993	N/A
TGFB3	2.756157873	N/A	N/A
JAM2	2.099938248	N/A	N/A
MYH10	1.932362693	N/A	N/A
PVRL1	1.851004267	6.212327667	N/A
PPP2R2C	1.847366778	N/A	N/A
PRKAR2B	1.760011412	N/A	N/A
AKT3	1.725946331	N/A	N/A
MYL4	1.606805633	N/A	N/A
CGN	-1.61614912	-1.87669696	-2.096446122
CLDN23	-1.632217441	N/A	N/A
IGSF5	-1.699744616	N/A	N/A
MYH14	-2.102744413	-2.025393502	N/A

Genes in the STAT3 Pathway network

	HFD	RD Tumor	HFD Tumor
NTRK3	4.874433594	N/A	N/A
NTRK2	3.321895708	N/A	N/A
MAPK12	3.150189309	N/A	N/A
FLT4	2.585086536	N/A	2.511563228
PDGFRA	2.193813668	N/A	N/A
MAPK11	2.160939274	2.730003606	2.68284995
FLT1	1.957766528	2.664241614	N/A
KDR	1.946646509	2.592358028	2.772586664
FGFR1	1.829401943	N/A	N/A
TGFBR3	1.712008298	N/A	N/A
MRAS	1.67414794	1.551592946	N/A
MAP2K2	-1.657151109	N/A	N/A