

Supplemental Table 2:**Genes that are significantly downregulated following *POU2/3* RNAi**

gene ID	Gene name/Blast to human	Fold change	
		POU2/3 d15	POU2/3 d21
SMED_07082_V2	furry-like [Homo sapiens];NP_055845	-3.84	-3.68
SMED_13636_V2	L-plastin [Homo sapiens];NP_002289	-3.47	-3.27
SMED_08876_V2	placental alkaline phosphatase preproprotein [Homo sapiens];NP_001623	-2.75	-2.38
SMED_24789_V2	solute carrier family 6 member 9 isoform 1 [Homo sapiens];NP_008865	-2.72	-2.83
SMED_06502_V2	solute carrier family 6 member 2 [Homo sapiens];NP_001034	-2.63	-2.66
SMED_21809_V2	cubilin precursor [Homo sapiens];NP_001072	-2.53	-2.43
SMED_04833_V2	septin 4 isoform 1 [Homo sapiens];NP_004565	-2.52	-2.40
SMED_11465_V2	placental alkaline phosphatase preproprotein [Homo sapiens];NP_001623	-2.52	-2.23
SMED_10830_V2	tetraspan 1 [Homo sapiens];NP_005718	-2.40	-2.27
SMED_29161_V2	cubilin precursor [Homo sapiens];NP_001072	-2.18	-2.29
SMED_06184_V2	PREDICTED: hypothetical protein, partial [Homo sapiens];XP_001716140	-2.17	-2.35
SMED_30744_V2	aquaporin 2 [Homo sapiens];NP_000477	-2.17	-1.98
SMED_16975_V2	dual-specificity tyrosine-(Y)-phosphorylation regulated kinase 1A isoform 4 [Homo sapiens];NP_569121	-2.15	-0.34
SMED_20428_V2	POU domain, class 3, transcription factor 1 [Homo sapiens];NP_002690	-2.03	-1.92
SMED_06225_V2	POU class 3 homeobox 3 [Homo sapiens];NP_006227	-1.98	-2.00
SMED_28523_V2	synaptotagmin I [Homo sapiens];NP_001129278	-1.80	-1.09
SMED_08988_V2	NADH dehydrogenase subunit 3 [Homo sapiens];YP_003024033	-1.80	-1.72
SMED_06225_V2	POU class 3 homeobox 3 [Homo sapiens];NP_006227	-1.76	-1.75
SMED_27916_V2	exportin 7 isoform b [Homo sapiens];NP_055839	-1.75	-1.90
SMED_15856_V2	solute carrier family 6, member 7 [Homo sapiens];NP_055043	-1.67	-1.83
SMED_10365_V2	CD9 antigen [Homo sapiens];NP_001760	-1.63	-1.69
SMED_20428_V2	POU domain, class 3, transcription factor 1 [Homo sapiens];NP_002690	-1.61	-1.67
SMED_10401_V2	solute carrier family 4, sodium bicarbonate transporter-like, member 10 [Homo sapiens];NP_071341	-1.52	-1.24
SMED_26293_V2	quaking homolog, KH domain RNA binding isoform HQK-7B [Homo sapiens];NP_996737	-1.49	-1.62
SMED_07082_V2	furry-like [Homo sapiens];NP_055845	-1.32	-1.03

SMED_29213_V2	placental alkaline phosphatase preproprotein [Homo sapiens];NP_001623	-1.31	-0.96
SMED_10860_V2	solute carrier family 5 (sodium/glucose cotransporter), member 12 [Homo sapiens];NP_848593	-1.30	-1.43
SMED_28600_V2	plasminogen isoform 1 precursor [Homo sapiens];NP_000292	-1.29	-1.53
SMED_03386_V2	centrosomal protein 290kDa [Homo sapiens];NP_079390	-1.28	-1.49
SMED_08878_V2	tubby isoform b [Homo sapiens];NP_813977	-1.26	-1.43
SMED_32500_V2	solute carrier family 24 member 6 precursor [Homo sapiens];NP_079235	-1.19	-1.15
SMED_16073_V2	otoferlin isoform a [Homo sapiens];NP_919224	-1.18	-1.17
SMED_37042_V2	zinc finger protein of the cerebellum 2 [Homo sapiens];NP_009060	-1.18	-1.78
SMED_17044_V2	lipoxygenase homology domains 1 isoform 1 [Homo sapiens];NP_653213	-1.16	-1.16
SMED_00445_V2	otoferlin isoform a [Homo sapiens];NP_919224	-1.16	-1.15
SMED_29162_V2	cubilin precursor [Homo sapiens];NP_001072	-1.14	-1.10
SMED_09768_V2	GTP cyclohydrolase 1 isoform 1 [Homo sapiens];NP_000152	-1.14	-1.25
SMED_24041_V2	itchy homolog E3 ubiquitin protein ligase [Homo sapiens];NP_113671	-1.14	-0.26
SMED_29212_V2	placental alkaline phosphatase preproprotein [Homo sapiens];NP_001623	-1.13	-0.78
SMED_30734_V2	5'-nucleotidase, cytosolic II [Homo sapiens];NP_001127845	-1.13	-1.00
SMED_02014_V2	hypothetical protein LOC200765 [Homo sapiens];NP_663748	-1.12	-0.63
SMED_24209_V2	erbB-2 isoform a [Homo sapiens];NP_004439	-1.09	-0.90
SMED_24209_V2	erbB-2 isoform a [Homo sapiens];NP_004439	-1.09	-0.82
SMED_31446_V2	alpha 1 type XIII collagen isoform 7 [Homo sapiens];NP_542993	-1.09	-0.98
SMED_21349_V2	collagen, type XXIV, alpha 1 precursor [Homo sapiens];NP_690850	-1.04	-0.94
SMED_12643_V2	mucin 2 precursor [Homo sapiens];NP_002448	-1.03	-1.59
SMED_16236_V2	endothelin converting enzyme 2 isoform E [Homo sapiens];NP_001093591	-1.03	-1.32
SMED_14127_V2	glutaryl-Coenzyme A dehydrogenase isoform a precursor [Homo sapiens];NP_000150	-1.02	0.24
SMED_17077_V2	protein kinase, cGMP-dependent, type I isoform 1 [Homo sapiens];NP_001091982	-1.01	-1.47
SMED_02040_V2	membrane metallo-endopeptidase [Homo sapiens];NP_009220	-1.01	-1.31
SMED_01648_V2	lamin B2 [Homo sapiens];NP_116126	-1.01	-1.57

SMED_25739_V2	acyl-CoA synthetase short-chain family member 3 precursor [Homo sapiens];NP_078836	-1.01	-0.92
SMED_23669_V2	protein kinase, cGMP-dependent, type II [Homo sapiens];NP_006250	-1.01	-1.37
SMED_23600_V2	epidermal growth factor receptor isoform a precursor [Homo sapiens];NP_005219	-1.00	-0.82
SMED_05544_V2	EF-hand calcium binding domain 4B isoform a [Homo sapiens];NP_001138430	-0.99	-0.93
SMED_26752_V2	carbonic anhydrase XIV precursor [Homo sapiens];NP_036245	-0.97	-0.99
SMED_23422_V2	protein tyrosine phosphatase, receptor type, D isoform 2 precursor [Homo sapiens];NP_569075	-0.96	-0.86
SMED_25970_V2	EF-hand calcium binding domain 4A [Homo sapiens];NP_775855	-0.96	-0.81
SMED_03203_V2	dynein heavy chain domain 2 isoform 1 [Homo sapiens];NP_848599	-0.95	-1.10
SMED_12105_V2	dynein, axonemal, heavy polypeptide 6 [Homo sapiens];NP_001361	-0.94	-1.10
SMED_00247_V2	spectrin, beta, non-erythrocytic 1 isoform 1 [Homo sapiens];NP_003119	-0.94	-1.06
SMED_12807_V2	heat shock 70kDa protein 1-like [Homo sapiens];NP_005518	-0.93	-0.91
SMED_03207_V2	dynein, axonemal, heavy chain 5 [Homo sapiens];NP_001360	-0.92	-1.23
SMED_07393_V2	ATP-binding cassette, subfamily B, member 4 isoform C [Homo sapiens];NP_061338	-0.92	-0.90
SMED_28174_V2	sal-like 1 isoform a [Homo sapiens];NP_002959	-0.90	-0.82
SMED_02296_V2	coatamer protein complex, subunit alpha isoform 2 [Homo sapiens];NP_004362	-0.89	-1.53
SMED_00693_V2	PREDICTED: hypothetical protein [Homo sapiens];XP_002344530	-0.89	-0.88
SMED_07933_V2	solute carrier family 7, member 2 isoform 2 [Homo sapiens];NP_001008539	-0.88	-0.77
SMED_12239_V2	transient receptor potential cation channel, subfamily M, member 1 [Homo sapiens];NP_002411	-0.88	-1.05
SMED_06872_V2	membrane metallo-endopeptidase [Homo sapiens];NP_009220	-0.88	-1.16
SMED_09007_V2	solute carrier family 5 (sodium/glucose cotransporter), member 11 [Homo sapiens];NP_443176	-0.88	-1.39
SMED_23543_V2	voltage-dependent calcium channel alpha 1G subunit isoform 1 [Homo sapiens];NP_061496	-0.88	-0.85
SMED_20206_V2	pantothenate kinase 4 [Homo sapiens];NP_060686	-0.87	-1.31

SMED_25105_V2	EF-hand calcium binding domain 4B isoform a [Homo sapiens];NP_001138430	-0.87	-0.83
SMED_37407_V2	integrin-linked kinase-associated protein phosphatase 2C [Homo sapiens];NP_110395	-0.87	-0.76
SMED_05837_V2	tektin 3 [Homo sapiens];NP_114104	-0.87	-1.18
SMED_00285_V2	coiled-coil domain containing 65 [Homo sapiens];NP_149115	-0.87	-1.00
SMED_01648_V2	lamin B2 [Homo sapiens];NP_116126	-0.86	-1.40
SMED_09317_V2	EF-hand calcium binding domain 4B isoform a [Homo sapiens];NP_001138430	-0.86	-0.86
SMED_14365_V2	asparagine synthetase [Homo sapiens];NP_597680	-0.86	-1.07
SMED_05811_V2	ubiquitin-conjugating enzyme E2K isoform 1 [Homo sapiens];NP_005330	-0.86	-1.11
SMED_26600_V2	tissue factor pathway inhibitor isoform a precursor [Homo sapiens];NP_006278	-0.85	-1.19
SMED_24387_V2	protein tyrosine phosphatase, receptor type, D isoform 2 precursor [Homo sapiens];NP_569075	-0.85	-1.21
SMED_22476_V2	dynein, axonemal, heavy chain 5 [Homo sapiens];NP_001360	-0.85	-1.13
SMED_25657_V2	carboxypeptidase 2, cytosolic [Homo sapiens];NP_079059	-0.85	-0.79
SMED_03224_V2	PREDICTED: hypothetical protein [Homo sapiens];XP_001126005	-0.85	-1.06
SMED_26539_V2	adenylate kinase domain containing 1 isoform 1 [Homo sapiens];NP_001138600	-0.85	-1.03
SMED_00684_V2	carbonic anhydrase VII isoform 1 [Homo sapiens];NP_005173	-0.84	-0.95
SMED_02455_V2	dynein, axonemal, heavy chain 17 [Homo sapiens];NP_775899	-0.84	-1.15
SMED_24060_V2	ubiquitin C [Homo sapiens];NP_066289	-0.84	-0.53
SMED_08853_V2	dynein, axonemal, heavy chain 3 [Homo sapiens];NP_060009	-0.84	-0.89
SMED_01148_V2	lamin B2 [Homo sapiens];NP_116126	-0.83	-1.28
SMED_33756_V2	ABT1-associated protein [Homo sapiens];NP_057733	-0.83	-0.71
SMED_22486_V2	PREDICTED: hypothetical protein [Homo sapiens];XP_002347599	-0.83	-0.80
SMED_33964_V2	tektin 1 [Homo sapiens];NP_444515	-0.83	-0.61
SMED_11067_V2	RAB1A, member RAS oncogene family isoform 1 [Homo sapiens];NP_004152	-0.82	-0.89
SMED_07305_V2	tektin 2 [Homo sapiens];NP_055281	-0.82	-1.02
SMED_24415_V2	collagen, type XXIV, alpha 1 precursor [Homo sapiens];NP_690850	-0.82	-0.76
SMED_01270_V2	smooth muscle myosin heavy chain 11 isoform SM2B [Homo sapiens];NP_001035202	-0.82	-0.92

Top 99 oligos that BLAST to a human gene and are significantly ($p < 0.05$) downregulated at day 15 in POU2/3(RNAi) animals relative to control animals