

Table 3: Upregulated genes in the mantle when compared to the gill

Transcript	logFC	Description	E Value	SwissProt ID
TRINITY_DN142871_c2_g1_i4	13.11627778			
TRINITY_DN126331_c0_g1_i9	9.297045233			
TRINITY_DN144158_c3_g1_i5	9.258557497			
TRINITY_DN123796_c5_g1_i1	8.819902849	MMS19 nucleotide excision repair protein homolog	3.27	Q96T76 (MMS19_HUMAN)
TRINITY_DN110933_c4_g1_i3	8.519430988			
TRINITY_DN109055_c4_g1_i10	8.227518932	Inactive serine protease 54	0.0955	Q6PEW0 (PRS54_HUMAN)
TRINITY_DN109584_c1_g1_i1	8.219963169	70 kDa neurofilament protein	0	Q01241 (NF70_DORPE)
TRINITY_DN115689_c2_g1_i3	8.136669772			
TRINITY_DN111971_c4_g1_i2	7.594210322			
TRINITY_DN148840_c8_g1_i4	7.481898171	Xylosyltransferase oxt	2.05E-07	Q5QQ53 (XYLT_DROPS)
TRINITY_DN139924_c3_g1_i1	7.473279018			
TRINITY_DN149117_c3_g1_i2	7.405888094			
TRINITY_DN121418_c5_g3_i1	7.241252586	Tolloid-like protein 1	5.42E-09	O43897 (TLL1_HUMAN)
TRINITY_DN109055_c4_g1_i8	6.707565293	Inactive serine protease 54	0.102	Q6PEW0 (PRS54_HUMAN)
TRINITY_DN121315_c3_g1_i1	6.689150813	Peritrophin-48	6.5	P91745 (PE48A_LUCCU)
TRINITY_DN123796_c5_g2_i1	6.544180486			
TRINITY_DN129967_c1_g3_i1	6.277182887			
TRINITY_DN95963_c6_g1_i3	6.267240832	Myeloperoxidase	1.78E-67	P11247 (PERM_MOUSE)
TRINITY_DN144158_c3_g1_i3	6.258020669	Tenascin-R	7.43	Q00546 (TENR_CHICK)
TRINITY_DN111315_c1_g1_i5	6.251338662	Galectin-3-binding protein	2.84E-14	O70513 (LG3BP_RAT)
TRINITY_DN109055_c4_g1_i6	6.216110287	Inactive serine protease 54	0.0529	Q6PEW0 (PRS54_HUMAN)
TRINITY_DN146204_c1_g1_i2	6.187387531	Fibropellin-1	3.42E-34	P10079 (FBP1_STRPU)
TRINITY_DN134881_c5_g3_i1	6.105183121			
TRINITY_DN143860_c2_g2_i2	6.01682907	Protein obstructor-E	0.0108	Q9VMM6 (OBSTE_DROME)
TRINITY_DN110351_c9_g5_i2	5.954580378	Serine protease 53	3.15	Q571E5 (PRS53_MOUSE)
TRINITY_DN141434_c5_g3_i1	5.913365087	Acidic mammalian chitinase	2.72E-96	Q6RY07 (CHIA_RAT)
TRINITY_DN95771_c1_g1_i4	5.877505703	Carboxypeptidase B	2.23E-61	P04069 (CBPB_ASTAS)
TRINITY_DN110933_c4_g2_i3	5.847452365	Ovochymase-1	8.02	Q7RTY7 (OVCH1_HUMAN)
TRINITY_DN149128_c14_g3_i2	5.818922605			
TRINITY_DN144499_c1_g2_i1	5.778791002	Protein PIF	7.29E-05	H2A0N4 (PIF_PINMG)
TRINITY_DN121878_c4_g6_i1	5.756726945			
TRINITY_DN95963_c6_g2_i2	5.738773427	Peroxidase	6.86E-08	Q01603 (PERO_DROME)
TRINITY_DN111315_c1_g1_i7	5.667906889	Galectin-3-binding protein	3.96E-14	Q07797 (LG3BP_MOUSE)
TRINITY_DN115689_c2_g1_i1	5.63582087			
TRINITY_DN139924_c3_g3_i2	5.621606435	G-type lectin S-receptor-like serine/threonine-protein kinase LECRK3	0.0326	Q25AG3 (LERK3_ORYSI)
TRINITY_DN115689_c2_g4_i1	5.60251947			
TRINITY_DN110933_c4_g1_i2	5.577301707			
TRINITY_DN139924_c3_g2_i2	5.527576154	Probable metalloprotease ARX1	9.72	Q5AI37 (ARX1_CANAL)
TRINITY_DN144001_c0_g4_i1	5.50082528	Coagulation factor IX	1.08E-07	P16293 (FA9_PIG)
TRINITY_DN110933_c4_g2_i1	5.456692823	Ovochymase-1	4.99	Q7RTY7 (OVCH1_HUMAN)
TRINITY_DN144001_c0_g2_i1	5.410339319			
TRINITY_DN102308_c5_g1_i3	5.364730287	ATP-dependent helicase FUN30	0.643	P31380 (FUN30_YEAST)
TRINITY_DN110351_c9_g1_i1	5.362796704			
TRINITY_DN144001_c0_g2_i3	5.211711516			
TRINITY_DN118212_c5_g1_i1	5.203404349			
TRINITY_DN106963_c5_g1_i2	5.08136241			
TRINITY_DN137009_c1_g3_i1	5.058355117	Ribulose biphosphate carboxylase small chain, chloroplastic	7.87	P17537 (RBS_CHLMO)
TRINITY_DN147542_c5_g1_i2	4.993420012	Acrosin	0.216	P29293 (ACRO_RAT)
TRINITY_DN148840_c8_g1_i1	4.953423466	Xylosyltransferase oxt	1.55E-07	Q5QQ53 (XYLT_DROPS)
TRINITY_DN129967_c1_g3_i2	4.925250826	Homeobox-leucine zipper protein HDG11	3.52	Q9FX31 (HDG11_ARATH)
TRINITY_DN137871_c3_g1_i2	4.912379817			
TRINITY_DN137871_c3_g2_i2	4.912349322			
TRINITY_DN148767_c4_g3_i2	4.861138565			
TRINITY_DN149304_c12_g3_i1	4.838851181	Collagen alpha-1(XIV) chain	1.98E-13	P32018 (COEA1_CHICK)
TRINITY_DN144158_c3_g1_i7	4.825509056	Tenascin-R	5.36	Q00546 (TENR_CHICK)
TRINITY_DN116629_c1_g1_i2	4.81108077			
TRINITY_DN131457_c3_g1_i3	4.806901914			
TRINITY_DN113234_c1_g3_i2	4.794829686	Tubulin beta chain	0	Q91240 (TBB_PSEAM)
TRINITY_DN148840_c8_g2_i1	4.788061403	Cell surface hyaluronidase	2.10E-95	Q5FWI3 (TMEM2_MOUSE)
TRINITY_DN112128_c1_g2_i1	4.551542616			
TRINITY_DN149149_c5_g1_i1	4.488579408	Fibrocystin-L	0	Q80ZA4 (PKHL1_MOUSE)
TRINITY_DN135341_c4_g1_i1	4.434748847	Chymotrypsinogen B	8.93E-10	Q9CR35 (CTRB1_MOUSE)
TRINITY_DN143295_c5_g2_i3	4.35024499	E3 ubiquitin-protein ligase ubr3	3.06	F1QJX5 (UBR3_DANRE)
TRINITY_DN135410_c0_g1_i2	4.241644788	Tolloid-like protein 2	2.57E-112	Q9WVM6 (TLL2_MOUSE)
TRINITY_DN134544_c5_g3_i1	4.16588971	Zinc finger protein 652-A	5.36	Q6GNP2 (Z652A_XENLA)
TRINITY_DN142871_c1_g1_i1	4.105547725			
TRINITY_DN143295_c4_g1_i3	4.081368018			
TRINITY_DN143012_c2_g1_i2	3.927929359			
TRINITY_DN130152_c0_g5_i2	3.804472621			
TRINITY_DN144246_c1_g2_i1	3.78501476			

TRINITY_DN117774_c6_g1_i1	3.763211894			
TRINITY_DN130152_c0_g2_i1	3.706562592	Caveolin-1	3.54E-27	P35431 (CAV1_CHICK)
TRINITY_DN122748_c1_g3_i3	3.65827401			
TRINITY_DN99756_c12_g1_i1	3.386650699	Hemagglutinin/amebocyte aggregation factor	3.05E-28	Q01528 (HAAF_LIMPO)
TRINITY_DN149230_c6_g1_i1	3.328882059	Neurogenic locus notch homolog protein 1	7.15E-79	A2RUV0 (NOTC1_XENTR)
TRINITY_DN129728_c6_g1_i3	3.272598104			
TRINITY_DN148029_c1_g3_i4	3.247631585			
TRINITY_DN148460_c1_g1_i1	3.13324644			
TRINITY_DN117352_c3_g2_i2	3.122994948			
TRINITY_DN116304_c9_g1_i1	3.115057948			
TRINITY_DN142526_c8_g3_i1	3.075512033			
TRINITY_DN121736_c4_g1_i1	3.053569111			
TRINITY_DN126569_c1_g2_i5	3.050317147	Collagen alpha-5(VI) chain	1.10E-15	A6H584 (CO6A5_MOUSE)
TRINITY_DN149141_c5_g1_i1	2.904986528	Sushi, nidogen and EGF-like domain-containing protein 1	0.000168	Q70E20 (SNED1_MOUSE)
TRINITY_DN148254_c3_g1_i2	2.824684275	Low-density lipoprotein receptor-related protein 4	2.84E-43	Q8VI56 (LRP4_MOUSE)
TRINITY_DN127173_c4_g1_i1	2.805847744	Dynein light chain 1, axonemal	1.24E-19	Q2KID4 (DNAL1_BOVIN)
TRINITY_DN141996_c0_g2_i2	2.769606539	Cubilin	4.35E-58	O70244 (CUBN_RAT)
TRINITY_DN148433_c11_g1_i1	2.691203822	Fibrillin-2	8.15E-74	Q61555 (FBN2_MOUSE)
TRINITY_DN127336_c2_g2_i1	2.685854458			
TRINITY_DN146613_c0_g2_i1	2.557958786			
TRINITY_DN149174_c3_g1_i1	2.49054249	Mucin-like protein	4.67E-97	B3EWY9 (MLP_ACRMII)
TRINITY_DN142336_c3_g2_i1	2.426563191			
TRINITY_DN146613_c0_g2_i4	2.383481039			
TRINITY_DN127203_c3_g1_i1	2.282135007			
TRINITY_DN102992_c7_g4_i1	2.273049308			
TRINITY_DN118467_c5_g1_i1	2.263958243			
TRINITY_DN134379_c0_g1_i1	2.156929679			
TRINITY_DN104559_c1_g5_i1	2.147705458	Tubulin beta-4B chain	1.27E-104	P86221 (TBB4B_MESAU)
TRINITY_DN138068_c0_g1_i1	2.113815644	Nesprin-1	1.35E-83	Q6ZWR6 (SYNE1_MOUSE)
TRINITY_DN125918_c0_g2_i1	2.108559781	Argininosuccinate lyase	0.368	Q8FYA4 (ARLY_BRUSU)
TRINITY_DN139555_c5_g5_i1	2.101786257	Ubiquitin carboxyl-terminal hydrolase 36	4.73	B3M3M6 (UBP36_DROAN)
TRINITY_DN148843_c3_g1_i4	2.071714281	Tubulin beta chain	1.38E-76	P02556 (TBB_LYTP1)
TRINITY_DN148843_c2_g1_i5	2.054946093	Tubulin beta chain	6.48E-122	P41386 (TBB_HALDI)
TRINITY_DN137252_c5_g1_i10	1.941121919			
TRINITY_DN138292_c6_g2_i1	1.928822073			
TRINITY_DN136642_c0_g1_i4	1.91510335			
TRINITY_DN97752_c0_g2_i6	1.902212576	EMILIN-2	0.000406	Q9BXX0 (EMIL2_HUMAN)
TRINITY_DN148830_c7_g2_i3	1.902196482			
TRINITY_DN140065_c4_g1_i1	1.888738846	Outer dense fiber protein 3	4.55E-71	Q5EB30 (ODF3A_XENTR)
TRINITY_DN125451_c4_g1_i3	1.8616069			
TRINITY_DN138292_c6_g1_i1	1.830371416	Protein PLANT CADMIUM RESISTANCE 3	2.34E-09	P0CW97 (PCR3_ARATH)
TRINITY_DN138292_c6_g2_i4	1.829694016	1-deoxy-D-xylulose-5-phosphate synthase	6.92	Q30TC5 (DXS_SULDN)
TRINITY_DN139669_c1_g1_i2	1.782858826	Calmodulin	0.0432	P15094 (CALM_ACHKL)
TRINITY_DN136642_c0_g1_i5	1.781408725			
TRINITY_DN145252_c1_g1_i4	1.774859518	Sodium- and chloride-dependent glycine transporter 1	4.12E-89	P48067 (SC6A9_HUMAN)
TRINITY_DN149302_c16_g1_i1	1.739528745	Fibropellin-1	4.00E-68	P10079 (FBP1_STRPU)
TRINITY_DN149287_c14_g1_i2	1.719151692	Protocadherin Fat 4	1.34E-94	Q2PZL6 (FAT4_MOUSE)
TRINITY_DN108822_c0_g1_i1	1.711093038	DPY30 domain-containing protein 1	1.62E-09	Q8WWB3 (DYDC1_HUMAN)
TRINITY_DN130986_c0_g4_i3	1.702044704			
TRINITY_DN124854_c0_g1_i1	1.688474186	Dynein heavy chain 8, axonemal	0	Q96JB1 (DYH8_HUMAN)
TRINITY_DN149311_c11_g1_i1	1.659430361	Nesprin-1	0	Q8NF91 (SYNE1_HUMAN)
TRINITY_DN149132_c14_g1_i4	1.642188591			
TRINITY_DN139555_c5_g3_i5	1.629327233			
TRINITY_DN149132_c15_g1_i2	1.626356544			
TRINITY_DN102549_c1_g1_i1	1.557578107	Dynein heavy chain 3, axonemal	0	Q8TD57 (DYH3_HUMAN)
TRINITY_DN149132_c15_g3_i2	1.516653612			
TRINITY_DN148315_c3_g1_i7	1.513648476	Dynein beta chain, ciliary	0	P39057 (DYHC_HELCR)
TRINITY_DN107613_c2_g2_i5	1.513459638	Signal peptide, CUB and EGF-like domain-containing protein 1	5.70E-07	Q8IWY4 (SCUB1_HUMAN)
TRINITY_DN139025_c5_g1_i6	1.510528307	Tubulin alpha-1 chain	0	P06603 (TBA1_DROME)
TRINITY_DN123031_c0_g3_i1	1.498785577	Tektin-4	4.42E-117	Q5PPV2 (TEKT4_XENLA)
TRINITY_DN148315_c3_g1_i4	1.495963758	Dynein beta chain, ciliary	0	P39057 (DYHC_HELCR)
TRINITY_DN144866_c5_g2_i2	1.490460283	Sodium- and chloride-dependent glycine transporter 2	1.17E-22	Q761V0 (SC6A5_MOUSE)
TRINITY_DN148843_c3_g1_i1	1.477345725	Tubulin beta chain	2.99E-67	P02556 (TBB_LYTP1)
TRINITY_DN149162_c5_g1_i1	1.464430139	Rootletin	0	Q5TZA2 (CROCC_HUMAN)
TRINITY_DN127466_c0_g2_i1	1.447173418	Sperm-associated antigen 6	0	Q9JLI7 (SPAG6_MOUSE)
TRINITY_DN94122_c1_g1_i1	1.441263077			
TRINITY_DN145498_c0_g3_i1	1.432806218	Dynein beta chain, ciliary	0	P23098 (DYHC_TRIGR)
TRINITY_DN149132_c15_g3_i1	1.4219333			
TRINITY_DN147387_c3_g2_i1	1.42165845	Tektin-2	1.54E-157	Q9UIF3 (TEKT2_HUMAN)
TRINITY_DN142431_c1_g1_i4	1.408818388	Prominin-1	1.09E-28	O54990 (PROM1_MOUSE)
TRINITY_DN149076_c4_g1_i1	1.400776643	Scavenger receptor cysteine-rich domain superfamily protein	1.49E-22	F7J220 (SRCR1_PATPE)
TRINITY_DN145605_c2_g1_i1	1.396010953	Tetratricopeptide repeat protein 29	1.95E-80	Q32NR4 (TTC29_XENLA)

TRINITY_DN148411_c2_g1_i1	1.382219672	Centrosomal protein of 135 kDa	1.27E-140	Q6P5D4 (CP135_MOUSE)
TRINITY_DN148721_c0_g1_i1	1.359356719	Dynein heavy chain 7, axonemal	0	Q8WXX0 (DYH7_HUMAN)
TRINITY_DN126909_c1_g1_i1	1.357652246	Coiled-coil domain-containing protein 173	2.97E-39	Q0VZF6 (CC173_HUMAN)
TRINITY_DN138005_c0_g2_i2	1.332780044	Enkurin	3.56E-77	Q6SP97 (ENKUR_MOUSE)
TRINITY_DN132573_c0_g1_i1	1.329549369	Protein FAM183B	6.02E-24	Q5NC57 (F183B_MOUSE)
TRINITY_DN139000_c7_g1_i2	1.318864229	LINE-1 reverse transcriptase homolog	3.47E-42	P08548 (LIN1_NYCCO)
TRINITY_DN148891_c4_g1_i2	1.290024008	Endothelin-converting enzyme 1	5.23E-60	P42892 (ECE1_HUMAN)
TRINITY_DN126828_c0_g1_i2	1.289045052	EF-hand domain-containing protein 1	0	Q5JVL4 (EFHC1_HUMAN)
TRINITY_DN148788_c8_g1_i1	1.265151188	Cilia- and flagella-associated protein 57	0	Q9D180 (CFA57_MOUSE)
TRINITY_DN127436_c1_g2_i1	1.255584074	Receptor-type tyrosine-protein phosphatase S	5.20E-60	B0V2N1 (PTPRS_MOUSE)
TRINITY_DN148583_c3_g1_i5	1.230684107	Cilia- and flagella-associated protein 52	0	Q5F201 (CFA52_MOUSE)
TRINITY_DN148871_c1_g2_i2	1.218317786	Cilia- and flagella-associated protein 65	0	F1P4W9 (CFA65_CHICK)
TRINITY_DN118455_c0_g2_i1	1.215571609			
TRINITY_DN122455_c1_g1_i1	1.209453482	DnaJ homolog subfamily B member 13	7.78E-147	Q80Y75 (DJB13_MOUSE)
TRINITY_DN140513_c1_g4_i1	1.188348335	Cilia- and flagella-associated protein 20	4.71E-132	Q6B857 (CFA20_BOVIN)
TRINITY_DN114883_c0_g1_i2	1.180367377	Cytochrome b5 domain-containing protein 1	5.24E-106	Q5PPR6 (CB5D1_XENLA)
TRINITY_DN148276_c9_g2_i1	1.178351045	Cilia- and flagella-associated protein 58	0	B2RW38 (CFA58_MOUSE)
TRINITY_DN149275_c4_g1_i1	1.170229395	Dynein heavy chain 5, axonemal	0	Q8TE73 (DYH5_HUMAN)
TRINITY_DN149108_c4_g1_i2	1.167540618	Sperm-associated antigen 17	2.16E-121	Q6Q759 (SPG17_HUMAN)
TRINITY_DN135972_c0_g2_i1	1.166235078	Radial spoke head 1 homolog	6.16E-72	Q8VIG3 (RSPH1_MOUSE)
TRINITY_DN134023_c1_g2_i1	1.159613669	Dynein regulatory complex subunit 3	2.92E-170	Q9H069 (DRC3_HUMAN)
TRINITY_DN146704_c2_g1_i1	1.153902007	Armadillo repeat-containing protein 4	0	B2RY50 (ARMC4_MOUSE)
TRINITY_DN148859_c6_g1_i2	1.143908052	Phosphoenolpyruvate carboxykinase [GTP], mitochondrial	0	Q16822 (PCKGM_HUMAN)
TRINITY_DN137070_c5_g1_i2	1.065153444			
TRINITY_DN128794_c2_g1_i2	1.041979303			
TRINITY_DN148997_c3_g1_i1	1.02721917	LIM and calponin homology domains-containing protein 1	6.50E-17	Q9UPQ0 (LIMC1_HUMAN)
TRINITY_DN147129_c3_g5_i1	1.027190658	Transmembrane protein 178B	8.23	H3BS89 (T178B_HUMAN)
TRINITY_DN109171_c2_g1_i1	0.998261047	Uncharacterized protein C2orf81	1.30E-29	A6NN90 (CB081_HUMAN)
TRINITY_DN125593_c57_g2_i4	0.899244807			
TRINITY_DN112246_c5_g1_i3	0.829659187	Peroxisomal protein 6	4.54E-88	O77834 (PRDX6_BOVIN)