

Figure S8.

			<b>TM1</b>		
MC5R-Human	1	MNSSFHLHFLDLNLNATEGNLS	SGPNVKNKSSP-CEDMGIAVEVFLITIG--	47	
P2Y3-Gallus	1	-----MSMANFTGGRNS-	CTFH EEFKQVLLPLVYS	29	
P2Y3L-Takifugu	1	-----PPHVGVTILQEFAGTFS	PPPSGTHQPPSCSIDESYKYIFLPI CYS	45	
P2Y3L-Medaka	1	-----STNISAAVIQDVLSSPYSTYSSTHSTSS	CSIDESYKYIFLPI CYS	45	
P2Y3L-Stickleback	1	-----SSTPSTTTPSPS-	CSIDESYKYIFLPI CYS	29	
P2Y3L-Danio	1	RSLRTMTTSWIETVTGV DARLS	SSANS SSGNGT-CNIDESYKYIFLPI CYS	49	
P2Y3-Callorhinchus	1	-----	CPLYEDYKHTLLPVTYS	17	
			<b>TM2</b>		
MC5R-Human	48	---VISLLENILVIGAI	VKNKNLHSPMYFFVCSLAVADMLVSMSSAWETI	94	
P2Y3-Gallus	30	VVFLGLPLNAVIGQI	WLARKALTRTTIYMLNLA MADLLVCS--LPLI	77	
P2Y3L-Takifugu	46	FTFIFSISLNSVILYRS	VCRTKRWNASLIYMNLA TDFMYGLS--LPFL	93	
P2Y3L-Medaka	46	FTFIFSITLNSVVL YRSFR-	TKRWNTSLIYMNLA TDFMYGLS--LPFL	92	
P2Y3L-Stickleback	30	FTFIFSISLNSVIL YRSFR	TKRWNP SLIYMNLA TDFMYGLS--LPFL	77	
P2Y3L-Danio	50	FTFVFSITLNFVVL YRSFR	RRRWNASLIYMNLA TDFMYGLS--LPFL	97	
P2Y3-Callorhinchus	18	LVFLLGLTLNGAVL	CLSWRLTRKWS CSTIYLVNLA VADLLVCS--LPLI	65	
			<b>TM3</b> ###		
MC5R-Human	95	TIYLLNNKHLVIADAF	VRHIDNVFDSMICISVVASMC SLLAIAVD RYVTI	144	
P2Y3-Gallus	78	IYNYTQKDYWPF	GDFLCKFVRFQF----YTNLHGSILFLTCISVQRYMGI	123	
P2Y3L-Takifugu	94	VASYIMRDCWVF	GDFMCRLVRF LF----YFNLYCSIFFLTCISVHRYLGI	139	
P2Y3L-Medaka	93	IASYIMODRWIF	GDFMCRLVRF LF----YFNLYCSIFFLTCISVHRYLGI	138	
P2Y3L-Stickleback	78	VASYVMRDRWVF	GDFMCRLVRF LF----YFNLYCSIFFLTCISVHRYLGI	123	
P2Y3L-Danio	98	VASYIMODDWVF	GDFMCRLVRF LF----YFNLYCSIFFLTCISVHRYLGI	143	
P2Y3-Callorhinchus	66	ILNYIWRDRWPF	GDFLCLVRF LF----YANLYGSILFLTCISVHRYLGL	111	
			<b>TM4</b>	187c	
MC5R-Human	145	FYAL-RYHHIMTARR	SGAIIAGIWFCTGCGIVFILYSESTYV--I----	187	
P2Y3-Gallus	124	CHPLASWHKKK	GKLTWLVC AAVWFIVIAOCLPTFVFASTGTQRNR---T	170	
P2Y3L-Takifugu	140	CHPM-RVITLET	TKKAVKCTCVVWIVVFALTCPIFRFAQTGYVSR---R	185	
P2Y3L-Medaka	139	CHPM-KVISLET	TKKTVKYTCVLVWIVVFALTCPIFRFAQTGCVT-S---V	183	
P2Y3L-Stickleback	124	CHPM-KVITLET	TKKAVKSTCVLVWIVVFALTCPIFRFAQTG---E----	164	
P2Y3L-Danio	144	CHPM-KTITLET	SKRAVKGTCVLVWIVVFALTCPIFRFAQTYLPREGKGT	192	
P2Y3-Callorhinchus	112	CFPM-KSIEWR	TRRLAVETCVVAWIMVGLQVVP TYLYAHTGSLANK---T	157	
			<b>TM5</b>		
MC5R-Human	188	L-----CL-----	ISMFFAMFLVSLYIHMFL LARTHVKRIAAL	222	
P2Y3-Gallus	171	V-----CYDLSPPDR	STSYFPYGITLITIGFLLPFAAILACYC SMARIL	214	
P2Y3L-Takifugu	186	VVEEYQNCWDDA	IDKEFPDYIPYGITLHLLGFFVFPFSIIA WCYSHVVLT I	235	
P2Y3L-Medaka	184	VIEQYQNCWDDA	IDKEFPVYVPYGITLHLLGFFVFPFSIIA WCYSHVVLT I	233	
P2Y3L-Stickleback	169	----YRNCWDDA	IDKEFPDYVPYGITLHLLGFFVFPFSIIA WCYSHVVLT I	214	
P2Y3L-Danio	193	REEVFNNCWDDA	IDREFHDYIPYGVTLHFLGFFMPFSIIA WCYSRVVLT I	242	
P2Y3-Callorhinchus	158	V-----CYDLTSPDN	FHNLYLPYGTVLTITG FVIPFVIL ILSYCCIIKTL	201	
		S212a	M234a	T252a	
MC5R-Human	223	-----	PGAS SAR-----	QRTSM	234
P2Y3-Gallus	215	-----	CQKDELIGLAVHKKKD		230
P2Y3L-Takifugu	236	FR-----	TLHSQPS SYRIPRGK SRRR		256
P2Y3L-Medaka	234	-----	CAHSPY-----	ANRRR	244
P2Y3L-Stickleback	212	RRR-----	DEGTSIFLGAHSPY-----	ANRRR	233
P2Y3L-Danio	243	FRTLNSEPPSQR	ARS GTGRESVAGIGGEGMSI ILGARS PY-----	VNRRR	287
P2Y3-Callorhinchus	202	-----	IVSGDSTQLQ----	KPVRT	216

		<b>TM6</b>		
MC5R-Human	235	OGAVIVTMLGVTVCWAPFFLHLT--LMLSCPONLYCSRFMSHFNMVLI		282
P2Y3-Gallus	231	KAVRMIIIVVIVFSISFFPFHLTKTIYLIVRSSASLPCPTLQAFATAYKC		280
P2Y3L-Takifugu	257	KSIIKTIITITLLFALCFPPFHVTRTIFLLLKVAKGVPCHTMTTVSMCYKI		306
P2Y3L-Medaka	245	KSIRTIITATLLFALCFPPFHVTRTIIVLLLKVSRRVPCHTMTTIVSICYKI		294
P2Y3L-Stickleback	234	KSIIKTIITITLLFALCFPPFHVTRTIFLVLKVTKGVPCHTMTTVSMCYKI		283
P2Y3L-Danio	288	KSIIKTIITITLLFALCFPPFHVTRTIFLLLKLTSRVQCHTMRMVSICYKI		337
P2Y3-Callorhinchus	217	KSIRTIIVLVCGLLAVCFVPPFHITRTIYLFVFRAYLAQDCNIILOTVSLAYKI		266

		<b>TM7</b>		
MC5R-Human	283	---LIMCNSVMDPLIYAFRSQEMRKFKEIICCRGFR-----IA		318
P2Y3-Gallus	281	TRPFASMNSVLDPIILFYFTQRFRESTRYLLDKMSSK-----WRQDHC		323
P2Y3L-Takifugu	307	TRPLASFNAWLNALLYFLTKD-----		327
P2Y3L-Medaka	295	TRPLASFNAWLNALLYFLTKDKMG-----NHCCQAANTTSQ---QREGLL		336
P2Y3L-Stickleback	284	TRPLASFNAWLNALLYFLTKDK-----		305
P2Y3L-Danio	338	TRPLASFNAWLNALLYFLTKDKNG-----PCCQKPEHAQHGLLWPLRML		381
P2Y3-Callorhinchus	267	WRPVIISFNSCINPLLYFLSGD-----		287

MC5R-Human	319	CSFPRRD	325
P2Y3-Gallus	324	ISYGS--	328
P2Y3L-Takifugu	-	-----	-
P2Y3L-Medaka	337	LPLRIMD	343
P2Y3L-Stickleback	-	-----	-
P2Y3L-Danio	382	GKGEEEE	388
P2Y3-Callorhinchus	-	-----	-