

Supplementary Material:

a)

814383	831741	831825	831846	831941	907097
814386	831748	831830	831847	831951	907308
831692	831805	831839	831850	832083	907326
831693	831807	831840	831853	832087	907445
831719	831819	831841	831855	832174	907455
831720	831823	831842	831860	832178	907561
831724	831824	831844	831884	834347	UTP

The ChEMBL ID codes for the selected nucleotides

TM1		26	55
P2Y ₁₁	FQGDFLWPIILVVEFLVAVASNGLALYRFSI		
P2Y ₁	FQFYLLPAVYILVFIIGFLGNSVAIWMFVF		
P2Y ₂	FKYVLLPVSYGVCVLGLCLNAVALYIFLC		
P2Y ₄	FKFILLPVSYAVVFLGLGLNAPTLWLFIF		
P2Y ₆	FKQLLPPVYSAVLAAGLPLNICVITQICT		
Rhodopsin	WQFSMLAAYMFLIIMLGFPINFLTLTYVTVQ		
TM2		63	92
P2Y ₁₁	PAVVFSVQLAVSLLCALTLPPLAAYLYPP		
P2Y ₁	GISVYMFNLALAEFLYVLTLPALIFYYFNK		
P2Y ₂	ASTTYMFHLAVSALYAAASLPLLVYYYARG		
P2Y ₄	ATATYMFHLALSCTLYVLSLPTLIYYAAH		
P2Y ₆	RTAVYTLNLALADLLYACSLPLLIYNYAQG		
Rhodopsin	PLNYILLNLAVADLFMVFGGFTTLYTSLH		
TM3		71	100
TM3		99	131
P2Y ₁₁	EAAQRLEERFLFTCNLLGSIIFITCISLNIYLGI		
P2Y ₁	DAMCKLQRFIFHVNLYGSIILFLTCISAHRYSGV		
P2Y ₂	TVLCKLVRFLFYTNLYCSILFLTCISVHRCCLGV		
P2Y ₄	TEICKFVRFLFYWNLYCSVFLFLTCISVHRYLGI		
P2Y ₆	DFACRLVRFLFYANLHGSILFLTCISFQRYLGI		
Rhodopsin	PTGQNLGFFATLGGEIALWLSLVLAIEIYVVV		
TM4		107	139
TM4		144	166
P2Y ₁₁	KHAWAVSAAGWVLAALLAMPTLS		
P2Y ₁	KNAICISVLVWLVIVVAISPILF		
P2Y ₂	RYARRVAGAVWVVLACQAPVLY		
P2Y ₄	RLAGLLCLAVWLVVAGCLVFNLF		
P2Y ₆	RAAWLVCAVWLVAVTTQCLPTAI		
Rhodopsin	NHAIMGVAFTWVMAACAAPPLV		
TM5		151	173
TM5		202	227
P2Y ₁₁	YRAYSLVLAGLGLPGLLLTLAAVGA		
P2Y ₁	YFIYSMCTTVAMFCVPLVLILGCYGL		
P2Y ₂	FVAYSSVMLGLLFAVFFAVILVCAVL		
P2Y ₄	YVHFSSAVMGLLEGVPCLVTLVCAVL		
P2Y ₆	YMPYGMALTVIGLLPFAALLACTCL		
Rhodopsin	NESFVIYMFVVFIIPLIVIFFCNGQ		
TM6		200	225
TM6		243	269
P2Y ₁₁	KLRVAALVASGVALYASSYVPEIMRV		
P2Y ₁	RRKSIYLVIIVLTVFAVSYIPFVIMKT		
P2Y ₂	R-KSVRTIADVLAVFALCFLEFVTRT		
P2Y ₄	L-RSLRTIADVLTVFAVCFVPEITRT		
P2Y ₆	RGKAARMAVVVAAAFASIFLPEITKT		
Rhodopsin	EKEVTRMVIIMVIAFLICWLPYAGVAF		
TM7		247	273
TM7		301	321
P2Y ₁₁	VGVQVMRGLMPLAFCVHLLLY		
P2Y ₁	ATVQVTRGLASLNSCVDEILY		
P2Y ₂	MAVQVTRPLASANSCLDEVLVY		
P2Y ₄	VVQVTRPLASANSCLDEVLVY		
P2Y ₆	AAVQVTRPFASANSVLDLILF		
Rhodopsin	IFMTIPAFFAKTSAVYNEVLY		
TM7		286	306

The full TM sequence alignment of *hP2Y₁₁*-R with other *hP2Y*-R subtypes and b-rhodopsin used for modelling.

Colour code: green: *hP2Y*-R conserved amino acid residues; red: GPCR conserved amino acid residue.