

GeneBLAzer® Validated Assays for GPCRs

Receptor	GeneBLAzer® Validated GPCR Assay Description	Receptor Accession #	Cat. #	Confirmed Agonist(s)	Confirmed Antagonist(s)
Acetylcholine (Muscarinic)	M1-NFAT- <i>bla</i> Jurkat	NM_000738	K1051	Carbachol, Pilocarpine, MCNA343	Pirenzepine, Scopolamine
	M1-NFAT- <i>bla</i> CHO-K1	NM_000738	K1230	Carbachol, Bethanecol, Oxotremorine M, MCN-A-343, Pilocarpine	Telenzepine, Scopolamine, D AMP, Methoctramine
	M3-NFAT- <i>bla</i> CHO-K1	NM_000740.2	K1227		
	M4-Gqo5-NFAT- <i>bla</i> CHO-K1	NM_000741	K1235		
	M5-NFAT- <i>bla</i> CHO-K1	BC041805.1	K1228		
Adenosine	ADORA2A-CRE- <i>bla</i> CHO-K1	NM_000675	K1245	NECA, Adenosine, CGS 21680	ZM 241385, SCH 58261
Bradykinin	Bradykinin(B1)-NFAT- <i>bla</i> CHO-K1	NM_000710	K1204	Bradykinin, Bradykinin (1-8)	HOE-140
Cannabinoid	CNR1-Gα15-NFAT- <i>bla</i> CHO-K1	NM_016083	K1267	CP55,940, WIN 55,212	AM251
Cholecystokinin	CCKBR-NFAT- <i>bla</i> HEK 293T	NM_176875	K1231	CCK, Pentagastrin	--
Corticotropin Releasing Factor	CRHR1-CRE- <i>bla</i> CHO-K1	NM_004382.2	K1263	CRF	--
	CRHR2-CRE- <i>bla</i> CHO-K1	NM_001883.2	K1262	CRF	--
Dopamine	D1-CRE- <i>bla</i> CHO-K1	NM_000794.2	K1086	Dihydroxidine, Fenoldopamine, A-77636	R(+)- SCH23390, (±)-SKF-83566
	D2-Gqo5-NFAT- <i>bla</i> CHO-K1	NM_000795	K1232	Apomorphine, Dopamine	Perphenazine
Endothelial Differentiation Gene	EDG3-Gα15-NFAT- <i>bla</i> HEK 293T	NM_005226	K1234	S1P, dh-S1P	CAY10444
	EDG7-NFAT- <i>bla</i> HEK 293T	NM_012152.1	K1251	18:1 LPA, 18:0 LPA, 16:0 LPA	VPC 32183(S)
Endothelin	ENDRA-NFAT- <i>bla</i> HEK293T	NM_001957	K1223	ET-1, ET-2, ET-3	PD 142893, BQ 123
	ENDRB-NFAT- <i>bla</i> HEK293T	NM_000115.1	K1224		PD 142893, BQ 788
Histamine	H1-NFAT- <i>bla</i> HEK293T	NM_000861	K1225	Histamine, HTMT	Pyrilamine, Triprolidine, Chlorpheniramine
	H2-CRE- <i>bla</i> HEK293T	NM_022304	K1226	Histamine, Dimaprit, Amthamine	Rantidine, Tiotidine
KISS1	GPR54-NFAT- <i>bla</i> CHO-K1	NM_032551 (w/ H364)	K1181	Metastin (45-54 & full length)	--

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Leukotriene	CysLT2-NFAT- <i>bla</i> CHO-K1	NM_020377	K1229	LTD ₄	LY171883
Formyl Peptide-Like	FPRL-1-Gα15-NFAT- <i>bla</i> CHO-K1	NM_000861	K1189	W Peptide, W Peptide Isoform, CKB8-1	WRW ⁴ , CDCA
Melanin-concentrating Hormone	GPR24-Gq15-NFAT- <i>bla</i> CHO-K1	NM_005297	K1250	MCH, MCH(salmon), [Phe13,Tyr19]-MCH	--
Orexin	HCRT2-Gα15-NFAT- <i>bla</i> CHO-K1	NM_001526	K1246	Orexin B, Orexin A	--
Melanocortin	MC1R-CRE- <i>bla</i> CHO-K1	NM_002386.2	K1252	NDP-α-MSH, MTII, SHU9119	--
	MC4R-Gα15-NFAT- <i>bla</i> CHO-K1	NM_005912	K1200	α-MSH, Melanotan II	SHU9119
	MC5R-CRE- <i>bla</i> CHO-K1	NM_005913	K1254	NDP-α-MSH, MTII, SHU9119, HS024	--
Neuromedin U	NMUR1-NFAT- <i>bla</i> CHO-K1	NM_006056.2	K1288	Neuromedin U-25, U-8	--
Opioid	OPRL1-Gq15-NFAT- <i>bla</i> CHO-K1	NM_000913	K1275	OrphaninFQ/Nociceptin, Nociceptin (1-13)-NH ₂	[Nphe1]-nociceptin (1-13)-NH ₂ , UFP-101
P2Y	P2RY2-NFAT- <i>bla</i> CHO-K1	BC012104	K1277	ATP, UTP, ADP, UDP	Suramin
	P2RY6-NFAT- <i>bla</i> CHO-K1	NM_004154	K1253	UDP, ADP	MRS 2578
	P2RY11-NFAT- <i>bla</i> CHO-K1	NM_002566	K1278	ATP, ADP	Suramin
Prolactin Releasing Peptide	GPR10-NFAT- <i>bla</i> CHO-K1	NM_004248	K1201	PrRP20, PrRP31	--
Prostanoid	PTGDR-CRE- <i>bla</i> CHO-K1	NM_000953.2	K1241	Prostaglandin D2, Prostaglandin E2, BW 245C	AH6809
	PTGE2R-CRE- <i>bla</i> CHO-K1	NM_000956.2	K1255	Prostaglandin E2, Prostaglandin D2, Butaprost, AH13205	AH6809
Serotonin	5HT1A-Gα15-NFAT- <i>bla</i> CHO-K1	NM_000524	K1083	5-CT, Egocristine, Pergolide Methanesulfonate, R-(+)-8-hydroxy-DPAT-hydrobromide	WAY100635
	HTR7-CRE- <i>bla</i> CHO-K1	NM_019860.2	K1264	5HT	--
Vasopressin	AVPR1a-NFAT- <i>bla</i> CHO-K1	NM_000706	K1286	Vasopressin, Oxytocin	β-Mercapto-Cyclopentamethylene-propionyl vasopressin
	AVPR2-CRE- <i>bla</i> CHO-K1	NM_000054	K1087	dDAVP, V2013, ARG-8	V4253, V2381
VIP & PACAP	VPAC1-CRE- <i>bla</i> CHO-K1	NM_004624	K1215	VIP, VPAC1, VPAC2, PACAP	VIP1 Antagonist
	VPAC2-CRE- <i>bla</i> CHO-K1	NM_003382	K1216	VIP, VPAC2, PACAP	