

PathHunter® Arrestin Citations

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GPCR Target	Reference
ADORA3	Gao ZG and Jacobson KA. (2008). Translocation of arrestin induced by human A(3) adenosine receptor ligands in an engineered cell line: comparison with G protein-dependent pathways. <i>Pharmacol Res</i> 57(4):303-11.
	Gao ZG, Verzijl D, Zweemer A, Ye K, Goblyos A, Ijzerman AP and Jacobson KA. (2011). Functionally biased modulation of A(3) adenosine receptor agonist efficacy and potency by imidazoquinolinamine allosteric enhancers. <i>Biochem Pharmacol</i> 82(6):658-68.
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AGTR1	Kim KS, Abraham D, Williams B, Violin JD, Mao L and Rockman HA. (2012). Beta-Arrestin-biased AT1R stimulation promotes cell survival during acute cardiac injury. <i>Am J Physiol Heart Circ Physiol</i> 303:H1001-1010.
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AGTRL1	Siddiquee K, Hampton J, McAnally D, May L and Smith L. (2013). The apelin receptor inhibits the angiotensin II type 1 receptor via allosteric trans-inhibition. <i>Br J Pharmacol</i> 168(5):1104-17.
CALCRL+RAMP1	Hay DL, Harris PWR, Kowalczyk R, Brimble MA, Rathbone DL, Barwell J, Conner AC and Poyner DR. (2014). Structure-activity relationships of the N-terminus of calcitonin gene-related peptide: key roles of alanine-5 and threonine-6 in receptor activation. <i>Br J Pharmacol</i> 171(2):415-26.
C5L2	Van Lith LH, Oosterom J, Van Elsas A and Zaman GJ. (2009). C5a-stimulated recruitment of β -Arrestin2 to the non-signaling 7-transmembrane decoy receptor C5L2. <i>J Biomol Screen</i> 14(9):1067-75.
Chemokines (multiple)	Garin A, Johnson Z, Hermant A, Beltran F, Ratinaud Y, Michel A, Krohn S, Gaudet M, Carboni S, Ji H, Missotten M, Leger O, Power C and Proudfoot A. (2013). Chemokine receptor antagonist development. <i>Methods Mol Biol</i> 1013:67-92.
	Rajagopal S, Bassoni DL, Campbell JJ, Gerard NP, Gerard C and Wehrman TS. (2013). Biased agonism as a mechanism for differential signaling by chemokine receptors. <i>J Biol Chem</i> 288(49):35039-48.
CCR1, CCR5 (Parental)	Rummel PC, Thiele S, Hansen LS, Petersen TP, Sparre-Ulrich AH, Ulven T and Rosenkilde MM. (2013). Extracellular disulfide bridges serve different purposes in two homologous chemokine receptors, CCR1 and CCR5. <i>Mol Pharm</i> Jun 13 [Epub ahead of print].
CCR4	Santulli-Marotto S, Fisher J, Petley T, Boakye K, Panavas T, Luongo J, Kavalkovich K, Ryczyn M, Wu B, Gutshall L, Coelho A, Hogaboam CM and Ryan, M. (2013). Surrogate antibodies that specifically bind and neutralize CCL17 but not CCL22. <i>Monoclon Antib Immunodiagn Immunother</i> 32(3):162-7.
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CCR7, CCR9, PTHR1, Parental	Watts AO, Verkaar F, van der Lee MM, Timmerman CA, Kuijter M, van Offenbeek J, van Lith LH, Smit MJ, Leurs R, Zaman GJ and Vischer HF. (2013). β -Arrestin recruitment and G protein signaling by the atypical human chemokine decoy receptor CCX-CKR. <i>J Biol Chem</i> 288(10):7169-81.

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CXCR7 (Internalization)	Liu S, Alomran R, Chernikova SB, Lartey F, Stafford J, Jang T, Merchant M, Zboralski D, Zollner S, Kruschinski A, Klusmann S, Recht L, and Brown MJ. (2014). Blockade of SDF-1 after irradiation inhibits tumor recurrences of autochthonous brain tumors in rats. <i>Neuro-Oncol</i> 16(1): 21-8.
CHRM1	Digby GJ, Noetzel MJ, Bubser M, Utley TJ, Walker AG, Byun NE, Lebois EP, Xiang Z, Sheffler DJ, Cho HP, et al. (2012). Novel allosteric agonists of M1 muscarinic acetylcholine receptors induce brain region-specific responses that correspond with behavioral effects in animal models. <i>J Neurosci</i> 32(25):8532-44.
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GPR35	Jenkins L, Alvarez-Curto E, Campbell K, de Munnik S, Canals M, Schlyer S and Milligan G. (2011). Agonist activation of the G protein-coupled receptor GPR35 involves transmembrane domain III and is transduced via Galpha(1)(3) and beta-arrestin-2. <i>Br J Pharmacol</i> 162(3):733-48. Neetoo-Isseljee Z, MacKenzie AE, Southern C, Jerman J, McIver EC, Harries N, Taylor DL and Milligan G. (2013). High-throughput identification and characterization of novel, species-selective GPR35 agonists. <i>J Pharmacol</i> 344(3): 568-578. MacKenzie AE, Caltabiano G, Kent TC, Jenkins L, McCallum JE, Hudson BD, Nicklin SA, Fawcett L, Lane R, Charlton SJ and Milligan G. (2014). The antiallergic mast cell stabilizers lodoxamide and bufrolin as the first high and equipotent agonists of human and rat GPR35. <i>Mol Pharmacol</i> 85(1):91-104.
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MCHR1	Sakurai T, Ogawa K, Ishihara Y, Kasai S and Nakayama M. (2013). Anti-obesity target MCHR1 is allosterically inhibited by 8-methylquinoline derivatives possessing subnanomolar-binding and long residence times. DOI: 10.1111/bph.12529. <i>Brit J Pharm.</i>
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S1P1	Lundstrom K. (2013). Present and future approaches to screening of G-protein-coupled receptors. <i>Future Medicinal Chemistry</i> 5(5): 523-538.
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