

## Product datasheet for **TA328869**

### Adgrl1 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide CEPREVRRVQWPATQ(G), corresponding to amino acid residues 480-494 of rat Latrophilin-1. Extracellular, N-terminus.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% NaN <sub>3</sub> .
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	adhesion G protein-coupled receptor L1
Database Link:	<a href="#">NP_075251</a> <a href="#">Entrez Gene 22859 Human</a> <a href="#">Entrez Gene 330814 Mouse</a> <a href="#">Entrez Gene 65096 Rat</a> <a href="#">O88917</a>



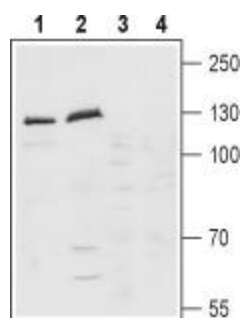
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**Background:**

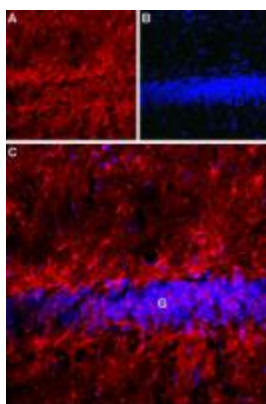
Latrophilins (Latrophilin1-3) are members of the adhesion G-protein coupled receptor subfamily. Like all GPCRs, Latrophilins have seven transmembrane domains and are distinguished by a large extracellular N-terminal tail and a large intracellular C-terminal tail1. The N-terminus has several cell adhesion domains and undergoes proteolysis after synthesis, while the C-terminal has various consensus post-translational sites like phosphorylation and palmitoylation. In addition, Latrophilins undergo alternative splicing. Latrophilin-1 was discovered by its ability to bind  $\alpha$ -Latrotoxin ( $\alpha$ -LTX), a toxin isolated from the black widow spider venom.  $\alpha$ -LTX induces exocytosis by creating a  $Ca^{2+}$  influx in the presynaptic membrane.  $\alpha$ -LTX can also stimulate small vesicle exocytosis in a  $Ca^{2+}$  independent manner. Three receptors have been found to bind  $\alpha$ -LTX. Of the three, Latrophilins are responsible for the  $Ca^{2+}$ -independent effects of  $\alpha$ -LTX2. The binding of  $\alpha$ -LTX to Latrophilin-1 increases exocytosis of neurotransmitters. In an attempt to find the natural ligand of Latrophilin-1, Lasso, a splice variant of Teneneurin-2 was discovered to be an endogenous binding partner of the adhesion-GPCR7. Teneneurins are large glycoproteins with a single transmembrane domain. Like Latrophilin-1, Teneneurins are mostly expressed in the brain where they modulate neurite outgrowth, axon guidance and synaptogenesis. Regarding the localization of Latrophilins, Latrophilin-1 is expressed predominantly in the brain, Latrophilin-2 is highly expressed in the liver and lung, while Latrophilin-3 is almost exclusively detected in the brain.

**Note:**

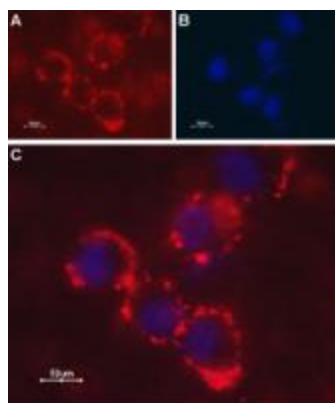
This antibody was tested in live cell imaging. Please see IF/ICC data for detail.

**Product images:**

Western blot analysis of rat brain (lanes 1 and 3) and mouse brain (lanes 2 and 4) lysates: 1, 2. Anti-Latrophilin-1 (extracellular) antibody, (1:200). 3, 4. Anti-Latrophilin-1 (extracellular) antibody, preincubated with the control peptide antigen.



Expression of Latrophilin-1 Receptor in rat hippocampus. Immunohistochemical staining of rat hippocampal dentate granule layer (G) using Anti-Latrophilin-1 Receptor (extracellular) antibody. A. Latrophilin-1 receptor staining (red) appears in astrocytes. B. Nuclear staining using DAPI as the counterstain (blue). C. Merged image of A and B.



Expression of Latrophilin-1 Receptor in SH-SY5Y cell line. Immunocytochemical staining of intact living human neuroblastoma (SH-SY5Y) cells. A. Extracellular staining of cells with Anti-Latrophilin-1 Receptor (extracellular) antibody, (red), (1:50) followed by goat anti-rabbit-AlexaFluor-594 secondary antibody. B. DAPI is used as the counterstain (blue). C. Merged images of A and B.