

## Product datasheet for **TA328701**

### alpha 1b Adrenergic Receptor (ADRA1B) Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	FC, IF, IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3,000; FC: 1:50-1:600
Reactivity:	Human, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)KNaNFTGPNQTSSNS, corresponding to amino acid residues 21-35 of human a1B-adrenoceptor . 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% NaN3.
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:	adrenoceptor alpha 1B
Database Link:	<a href="#">NP_000670</a> <a href="#">Entrez Gene 24173 Rat</a> <a href="#">Entrez Gene 147 Human</a> <a href="#">P35368</a>



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**Background:**

Adrenoceptors (also called Adrenergic receptors) are the receptors for the catecholamines adrenaline and noradrenaline (called epinephrine and norepinephrine in the United States). Adrenaline and noradrenaline play important roles in the control of blood pressure, myocardial contractile rate and force, airway reactivity, and a variety of metabolic and central nervous system functions. The Adrenoceptors are members of the G-protein-coupled receptor (GPCR) superfamily of membrane proteins. They share a common structure of seven putative transmembrane domains, an extracellular amino terminus, and a cytoplasmic carboxyl terminus. The Adrenoceptors are divided into three types:  $\alpha_1$ ,  $\alpha_2$  and  $\beta$  adrenoceptors. Each type is further divided into at least three subtypes:  $\alpha_1A$ ,  $\alpha_1B$ ,  $\alpha_1D$ ,  $\alpha_2A$ ,  $\alpha_2B$ ,  $\alpha_2C$ ,  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ . They are expressed in nearly all peripheral tissues and in the central nervous system. All  $\alpha_1$ -Adrenoceptors ( $\alpha_1$ -ARs) activate phospholipases C and A2. In addition to mobilizing intracellular calcium, the  $\alpha_1$ -ARs have also been shown to activate calcium influx via voltage-dependent and independent calcium channels. The  $\alpha_1B$ -Adrenoceptor shows the highest levels in the spleen, kidney, cerebellum, and fetal brain.  $\alpha_1B$  Adrenoceptor causes contraction of smooth muscle cells and thereby controls vascular tone, blood pressure, and accelerates the development of atherosclerosis.

**Synonyms:**

ADRA1; ALPHA1BAR

**Note:**

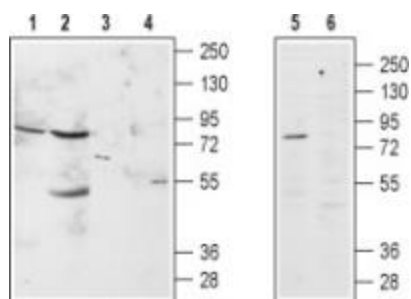
This antibody was tested in live cell imaging. Please see IF/ICC data for detail.

**Protein Families:**

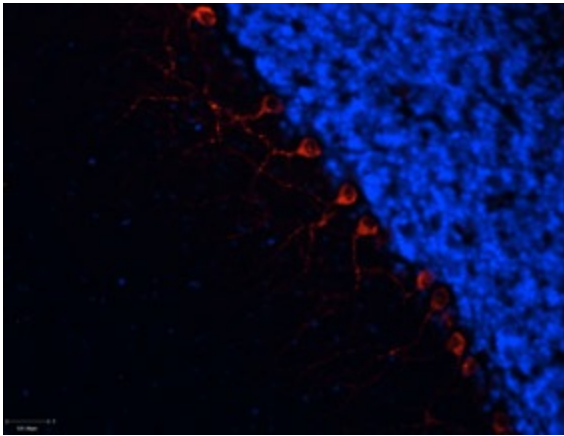
Druggable Genome, GPCR, Transmembrane

**Protein Pathways:**

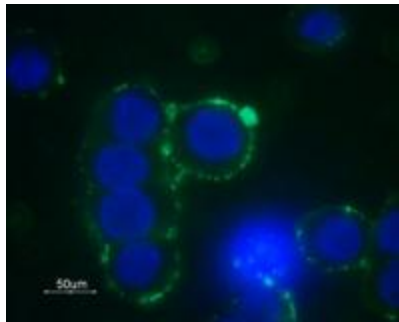
Calcium signaling pathway, Neuroactive ligand-receptor interaction, Vascular smooth muscle contraction

**Product images:**

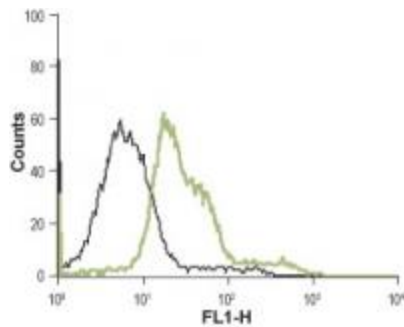
Western blot analysis of  $\alpha_1B$ -adrenoreceptor in lysates of rat brain (lanes 1 and 3), rat kidney (lanes 2 and 4) and GH3 cell line (lanes 5 and 6): 1, 2, 5. Anti- $\alpha_1B$ -adrenoreceptor (extracellular) antibody, (1:200). 3, 4, 6. Anti- $\alpha_1B$ -adrenoreceptor (extracellular) antibody, preincubated with the control peptide antigen.



Expression of Anti-α1B-Adrenoceptor in rat cerebellum. Immunohistochemical staining of frozen section of rat cerebellum using Anti-α1B-Adrenoceptor (extracellular) antibody, (1:100). α1B-Adrenoceptor (red) is detected in Purkinje cells. Hoechst 33342 was used as the counterstain.



Expression of α1B-adrenoreceptor in GH3 cells. Immunocytochemical staining of GH3 cells with Anti-α1B-adrenoreceptor (extracellular) antibody, followed by goat anti-rabbit-AlexaFluor-488 secondary antibody (green). Nuclear staining of cells using the DNA dye Hoechst 33342 (blue).



Indirect flow cytometry analysis of GH3 living cells: black line, Unstained cells. green line, Cells + Anti-α1B-adrenoreceptor (extracellular) antibody, (10 ug/5x10<sup>5</sup> cells).