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Product datasheet for TA328712

Adra1d Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	FC, IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3,000; FC: 1:50-1:600
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)EPVPPDERF*SGITEE, corresponding to amino acid residues 231-245 of rat a1D-Adrenoceptor with replacement of cysteine 240 (C240) with serine (*S). 3rd extracellular loop.
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 1D
Database Link:	NP_077809 Entrez Gene 146 HumanEntrez Gene 11550 MouseEntrez Gene 29413 Rat P23944

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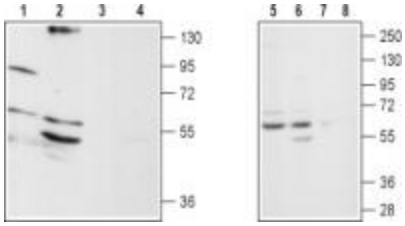
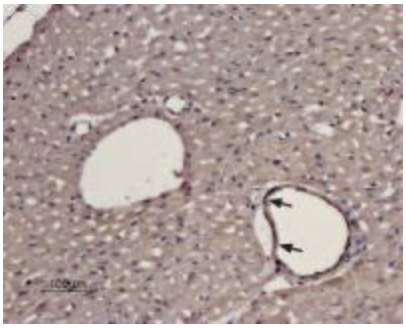
Background: Adrenoceptors (also called Adrenergic receptors) are the receptors for the catecholamines adrenaline and noradrenaline (called epinephrine and norepinephrine in the United States). Adrenaline and noradrenaline play important roles in the control of blood pressure, myocardial contractile rate 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: a1, a2 and Ã?-Adrenoceptors. Each type is further divided into at least three subtypes: a1A, a1B, a1D, a2A, a2B, a2C, Ã?1, Ã?2, Ã?3. The Adrenoceptors are expressed in nearly all peripheral tissues and in the central nervous system.a1-Adrenergic Receptors play an important role in the physiological response to epinephrine and norepinephrine, particularly in the cardiovascular system. All three cloned a1 receptors (a1A, a1B, and a1D) couple to Gq/11.While their cellular distribution is clear, their functional role is less so due to the lack of specific agonists/antagonists. As these receptors lack specific agonists/antagonists knock-out mice studies have most significantly shed light on the cellular role of Adrenoceptors. Individual a1-Adrenoceptor knock-out mice do not display physical abnormalities in general. Similar knock-out studies indicate that all a1 subtypes seem to be involved in the regulation of blood pressure. Also, studies indicate that a1D-Adrenoceptor seems to play an important role in aortic contraction, renal function, nociception, basal locomotor activity as well as bladder contraction.

Synonyms: ADRA1; ADRA1A; ADRA1R; ALPHA1; DAR; dJ779E11.2

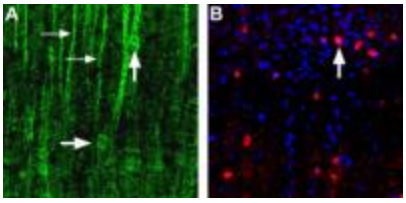
Product images:



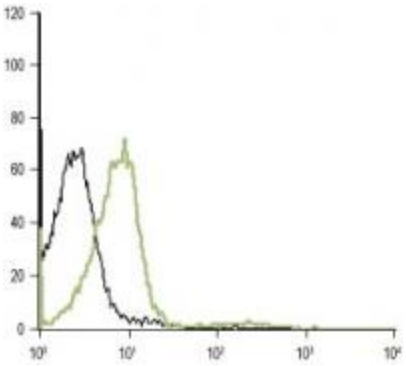
Western blot analysis of rat brain stem (lanes 1 and 3), mouse brain (lanes 2 and 4), SH-SY5Y (lanes 5 and 7) and Jurkat (lanes 6 and 8) lysates: 1, 2, 5, 6. Anti-a1D-Adrenoceptor (extracellular) antibody, (1:200). 3, 4, 7, 8. Anti-a1D-Adrenoceptor (extracellular) antibody, preincubated with the control peptide antigen.



Expression of a1D-Adrenoceptor in rat heart. Immunohistochemical staining of rat heart paraffin embedded sections using Anti-a1D-Adrenoceptor (extracellular) antibody, (1:100). a1D-Adrenoceptor is expressed in cardiomyocytes of the myocardium and in the smooth muscle of the blood vessels (arrows). Hematoxilin is used as the counterstain.



IHC staining of a1D-Adrenoceptor in rat neocortex using Anti-a1D-Adrenoceptor (extracellular) antibody. A. Most intense staining of a1D-Adrenoceptor (green) appears in apical dendrites (thin horizontal arrows) but also in the soma (thick horizontal arrow). Few cortical interneurons express a1D-Adrenoceptor. B. The same section was also stained for parvalbumin and one cell (marked with a vertical arrow) also expresses a1D-Adrenoceptor.



Indirect flow cytometry analysis of intact live Jurkat cells: black line: Unstained cells. Green line: Cells + Anti-a1D-Adrenoceptor (extracellular) antibody, (5-10 ug antibody/0.5x106 cells).