

## Product datasheet for **TA328606**

### Adenosine A3 Receptor (ADORA3) 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, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)KETGAFYGREFKTAK, corresponding to amino acid residues 216-230 of human A3AR. 3rd intracellular 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% 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:	adenosine A3 receptor
Database Link:	<a href="#">NP_000668</a> <a href="#">Entrez Gene 25370 Rat</a> <a href="#">Entrez Gene 140 Human</a> <a href="#">P0DMS8</a>



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**Background:**

Adenosine is an endogenous nucleoside generated locally in tissues under conditions of hypoxia, ischemia, or inflammation. It modulates a variety of physiological functions in many tissues including brain and heart. Adenosine exerts its action via four specific adenosine receptors (also named P1 purinergic receptors): A1-Adenosine receptor (A1AR), A2A-Adenosine receptor (A2AAR), A2B-Adenosine receptor (A2BAR), and A3-Adenosine receptor (A3AR). The various adenosine receptors can be distinguished on the basis of their distinct molecular structures, distinct tissue distributions, and differential selectivity for adenosine analogs. However, all are integral membrane proteins and members of the G Protein-Coupled Receptor superfamily. They share a common structure of seven putative transmembrane domains, an extracellular amino terminus, a cytoplasmic carboxyl terminus, and a third intracellular loop that is important for binding G proteins. Expression of A3AR has been reported in brain, kidney, liver, and heart. It plays a role in modulation of cerebral ischemia, asthma, and cell growth. In addition, recent studies have established a cardioprotective role for A3AR. Expression of A3AR was reported to be elevated in cancerous tissues as well as in auto-immune inflammatory diseases. A patent has been filed for the use of A3AR and A3AR agonist as a diagnostic marker for therapeutic treatments of cancer and other diseases.

**Synonyms:**

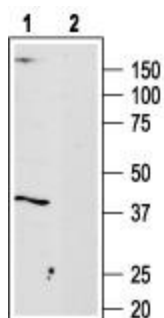
A3AR

**Protein Families:**

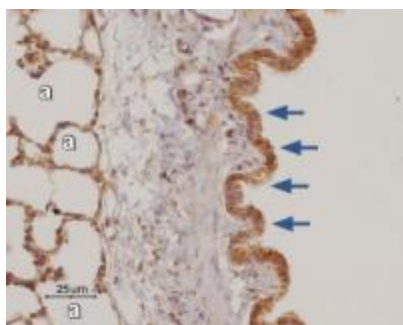
Druggable Genome, GPCR, Transmembrane

**Protein Pathways:**

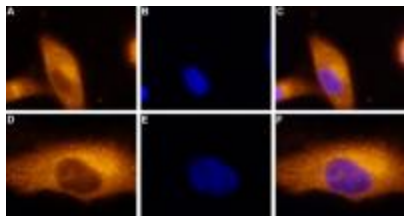
Neuroactive ligand-receptor interaction

**Product images:**

Western blot analysis of Malme-3M cell lysate: 1. Anti-A3 Adenosine Receptor antibody, (1:200). 2. Anti-A3 Adenosine Receptor antibody, preincubated with the control peptide antigen.



Expression of A3 Adenosine Receptor in rat lung. Immunohistochemical staining of paraffin-embedded rat lung sections using Anti-A3 Adenosine Receptor antibody, (1:50). Staining is specific for respiratory epithelial cells of the bronchiole (arrows) and pneumonocytes in the alveolar wall (a). Hematoxylin is used as the counterstain.



Expression of A3 Adenosine Receptor in a human melanoma cell line. Immunocytochemical staining of paraformaldehyde-fixed and permeabilized human melanoma cells (A2058). A, D. Cells were stained using Anti-A3 Adenosine Receptor antibody, (1:100), followed by goat anti-rabbit AlexaFluor-555 secondary antibody. B, E. Nuclear fluorescence staining of cells using the membrane-permeable DNA dye Hoechst 33342. C. Merged image of panels A and B. F. Merged image of panels D and E.