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Adenosine A3 Receptor Rabbit pAb

Catalog # AP97674

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	P0DMS8
Other Accession	P0DMS8
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	36185
Physical State	Liquid
Immunogen	Recombinant human Adenosine receptor A3 protein
Epitope Specificity	270-318/347
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the G-protein coupled receptor 1 family.
Post-translational modifications	Phosphorylation on Ser-317 may be crucial for rapid desensitization.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a protein that belongs to the family of adenosine receptors, which are G-protein-coupled receptors that are involved in a variety of intracellular signaling pathways and physiological functions. The receptor encoded by this gene mediates a sustained cardioprotective function during cardiac ischemia, it is involved in the inhibition of neutrophil degranulation in neutrophil-mediated tissue injury, it has been implicated in both neuroprotective and neurodegenerative effects, and it may also mediate both cell proliferation and cell death. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008].

Additional Information

Gene ID	140
Other Names	A3AR; AA3R_CANLF; ADORA3; AA3R_HUMAN; adenosine A3 receptor
Dilution	IHC-P=1:400-800,IHC-F=1:400-800,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	ADORA3 (HGNC:268)
Function	G protein-coupled receptor (GPCR) for adenosine that plays significant roles in various physiological processes including immune regulation, cardioprotection and neuroprotection (PubMed:38627384, PubMed:40825947, PubMed:9837869). Also acts as a receptor for adenosines containing N(6)-methylated adenine (m6A) post- transcriptional modification, which are derived from the degradation of RNAs (mRNAs, rRNAs and tRNAs): activated by N(6)-methyladenosine (m6A), N(6),N(6)-dimethyladenosine (m6,6A) and N(6)-isopentenyladenosine (i6A) (PubMed:33472058, PubMed:39511145). Preferentially couples to the inhibitory G protein (Gi), leading to the suppression of adenylate cyclase activity and a reduction in intracellular cyclic AMP levels (PubMed:33472058, PubMed:38627384). Upon adenosine binding, mediates cardioprotection in cardiomyocytes through anti-apoptotic effects primarily via the ERK1/2 pathway as well as the PI3K pathway (PubMed:9837869). In the central nervous system, participates in the modulation of synaptic plasticity, including long-term potentiation (LTP) and long-term depression (LTD) in the hippocampus (By similarity). In lung mast cells, receptor activation contributes to the type I allergic response by facilitating mast cell degranulation and histamine release (By similarity). Highly expressed in inflammatory cells such as neutrophils and mast cells, inhibits neutrophil degranulation and reduces superoxide production, thereby modulating inflammatory responses (PubMed:9164961).
Cellular Location	Cell membrane {ECO:0000250|UniProtKB:Q28309}; Multi-pass membrane protein
Tissue Location	Expressed in the lung and bone. Expressed at lower levels in osteosarcoma tissues (at protein level)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.