10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-Adenosine A3 Receptor Antibody

Catalog # AP60531

Product Information

Application	WB, IF/IC
Primary Accession	P0DMS8
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	36185

Additional Information

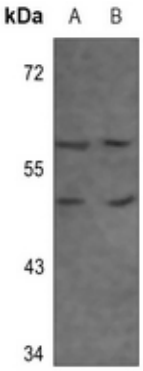
Gene ID	140
Other Names	Adenosine receptor A3
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human Adenosine A3 Receptor. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000), IF/IC (1/100 - 1/500) IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

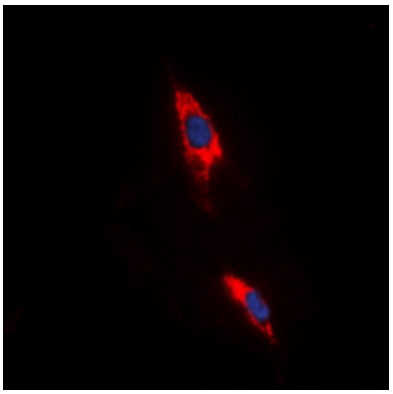
Name	ADORA3 (HGNC:268)
Function	G protein-coupled receptor (GPCR) for adenosine that plays significant roles in various physiological processes including immune regulation, cardioprotection and neuroprotection (PubMed:38627384, PubMed:40825947, PubMed:9837869). Also acts as a receptor for adenosines 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)

Images



Western blot analysis of Adenosine A3 Receptor expression in MCF7 (A), H1792 (B) whole cell lysates. (Predicted band size: 36 kD; Observed band size: 44; 66 kD)



Immunofluorescent analysis of Adenosine A3 Receptor staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

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