PDE7A Monoclonal Antibody

Catalog No	BYmab-05637
Isotype	IgG
Reactivity	Human;Rat;Mouse
Applications	WB
Gene Name	PDE7A
Protein Name	High affinity cAMP-specific 3',5'-cyclic phosphodiesterase 7A (EC 3.1.4.17) (HCP1) (TM22)
Immunogen	Synthesized peptide derived from part region of human protein
Specificity	PDE7A Monoclonal Antibody detects endogenous levels of protein.
Formulation	Liquid in PBS containing 50% glycerol, and 0.02% sodium azide.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	
Observed Band	53kD
Cell Pathway	[Isoform PDE7A1]: Cytoplasm, cytosol . PDE7A1 (57 kDa) is located mostly to soluble cellular fractions. .; [Isoform PDE7A2]: Cytoplasm . PDE7A2 (50 kDa) is located to particulate cellular fractions. .
Tissue Specificity	[Isoform PDE7A1]: Found at high levels in skeletal muscle and at low levels in a variety of tissues including brain and heart (PubMed:9195912). It is expressed as well in two T-cell lines (PubMed:9195912). ; [Isoform PDE7A2]: Found abundantly in skeletal muscle and at low levels in heart.
Function	catalytic activity:Adenosine 3',5'-cyclic phosphate + H(2)O = adenosine 5'-phosphate.,cofactor:Divalent cations.,developmental stage:Developmentally regulated. PDE7A1 and PDE7A2 are found in several fetal tissues, expression is reduced throughout development. It persists strongly only in adult skeletal muscle.,domain:Composed of a C-terminal catalytic domain containing two putative divalent metal sites and an N-terminal regulatory domain.,enzyme regulation:Insensitive to all selective PDE inhibitors.,function:Plays a role in signal transduction by regulating the intracellular concentration of cyclic nucleotides.

	This phosphodiesterase is highly specific for cAMP and may have a role in muscle signal transduction.,pathway:Purine metabolism; cAMP degradation; AMP from cAMP: step 1/1.,similarity:Belongs to the cyclic nucleotide phosphodiesterase family.,subcellular location:PDE7A1 (57 kDa) i
Background	The protein encoded by this gene belongs to the cyclic nucleotide phosphodiesterase (PDE) family, and PDE7 subfamily. This PDE hydrolyzes the second messenger, cAMP, which is a regulator and mediator of a number of cellular responses to extracellular signals. Thus, by regulating the cellular concentration of cAMP, this protein plays a key role in many important physiological processes. Alternatively spliced transcript variants encoding different isoforms have been described for this gene. [provided by RefSeq, Jul 2011],
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

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