



# PDE7A Polyclonal Antibody

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| <b>Catalog No</b>                  | YP-Ab-05637                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Isotype</b>                     | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Reactivity</b>                  | Human;Rat;Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Applications</b>                | WB;ELISA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Gene Name</b>                   | PDE7A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Immunogen</b>                   | Synthesized peptide derived from part region of human protein                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Specificity</b>                 | PDE7A Polyclonal Antibody detects endogenous levels of protein.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Formulation</b>                 | Liquid in PBS containing 50% glycerol, and 0.02% sodium azide.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Source</b>                      | Polyclonal, Rabbit,IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Purification</b>                | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Dilution</b>                    | WB 1:500-2000 ELISA 1:5000-20000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Concentration</b>               | 1 mg/ml                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Purity</b>                      | ≥90%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Storage Stability</b>           | -20°C/1 year                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Synonyms</b>                    | HCP1;PDE7;PDE7A;phosphodiesterase 7A;TM22;High affinity cAMP-specific 3'; 5'-cyclic phosphodiesterase 7A (EC 3.1.4.17) (HCP1) (TM22)                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Observed Band</b>               | 48 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Calculated Molecular Weight</b> | 482 aa, 56 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Cell Pathway</b>                | [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. .                                                                                                                                                                                                                                                                                                                                          |
| <b>Tissue Specificity</b>          | [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.                                                                                                                                                                                                                                                |
| <b>Function</b>                    | 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.

## Products Images