

Product datasheet

Recombinant human PDE9A protein ab54113

Overview

Product name	Recombinant human PDE9A protein
Protein length	Full length protein

Description

Nature	Recombinant
Source	Baculovirus infected Sf9 cells

Amino Acid Sequence

Species	Human
Tags	GST tag N-Terminus

Specifications

Our [Abpromise guarantee](#) covers the use of **ab54113** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Biological activity	Specific Activity: 97 U/ug. 1 unit will release 1 pmole phosphate per minute from 400 uM 5'-GMP at 30 °C in a reaction buffer of 10 mM Tris-HCl, pH 7.4, 1 mM MgCl ₂ . Assay buffer: 10mM Tris-HCl, pH 7.4, 1 mM Magnesium chloride ; 3', 5'-cGMP substrate: 0.4 mM; PDE9A: 5 ng/ul.
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Applications	SDS-PAGE Phosphatase Activity Inhibition Assay
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Form	Liquid
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Preparation and Storage

Stability and Storage	Shipped on Dry Ice. Upon delivery aliquot. Store at -80°C. Avoid freeze / thaw cycle. pH: 8.00 Constituents: 0.1535% Glutathione, 0.0462% DTT, 0.395% Tris HCl, 0.05% Tween, 30% Glycerol, 0.58% Sodium chloride This product is an active protein and may elicit a biological response in vivo, handle with caution.
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General Info

Function	Hydrolyzes the second messenger cGMP, which is a key regulator of many important physiological processes.
Tissue specificity	Expressed in all tissues examined (testis, brain, small intestine, skeletal muscle, heart, lung, thymus, spleen, placenta, kidney, liver, pancreas, ovary and prostate) except blood. Highest levels in brain, heart, kidney, spleen, prostate and colon. Isoform PDE9A12 is found in prostate.
Sequence similarities	Belongs to the cyclic nucleotide phosphodiesterase family. PDE9 subfamily.
Domain	Composed of a C-terminal catalytic domain containing two putative divalent metal sites and an N-terminal regulatory domain.
Cellular localization	Cytoplasm. Endoplasmic reticulum; Cell projection > ruffle membrane. Cytoplasm > perinuclear region and Cell projection > ruffle membrane. Cytoplasm > perinuclear region. Golgi apparatus. Endoplasmic reticulum.

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