

PDE4A active protein

PDE4A, Active

CATALOG #
AAA73103

HOST
Sf9 cells

PRODUCT SYNONYMS

PDE4A; Active; PDE4A active protein

PRODUCT SPECIFICATIONS

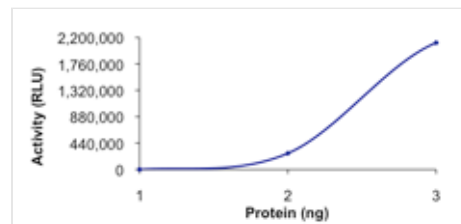
Host	Sf9 cells
Purity/Purification	>95%
Form/Format	Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.
Concentration	0.1 ug/ml (varies by lot)
Specific Activity	1082 nmol/min/mg
Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.
Preparation and Storage	Shipping: Dry Ice Store product at -70 degree C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

IMAGES



Application Data

The purity was determined to be > 95% by densitometry.



Application Data

The specific activity of PDE4A was determined to be 1082 nmol/min/mg as per activity assay protocol.

ADDITIONAL INFORMATION

Related Product Information for PDE4A active protein

Description: Recombinant human PDE4A (332-end) was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag.

Scientific Background: PDE4A is a member of the phosphodiesterase family of proteins that play a critical role in regulating intracellular levels of cAMP. In vitro phosphorylation of PDE4A by the PKA-catalytic subunit increases the enzyme's sensitivity to Mg (2+), leading to a 4-fold increase in cAMP hydrolysis without affecting the Km. PDE4 is widely expressed in brain tumors and promotes their growth and treatment with PDE4A inhibitor Rolipram overcomes tumor resistance and mediates tumor regression (1). PDE4A expression is altered in patients with bipolar disorder and is a new therapeutic avenue for treatment of this disorder (2).

Product Categories/Family for PDE4A active protein

Enzymes; Active Phosphodiesterases

References	1. Goldhoff P, et al: Targeted inhibition of cyclic AMP phosphodiesterase-4 promotes brain tumor regression. Clin Cancer Res. 2008 Dec 1;14 (23):7717-25. 2. Fatemi S H, et al: Phosphodiesterase-4A expression is reduced in cerebella of patients with bipolar disorder. Psychiatr Genet. 2008 Dec;18 (6):282-8.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	162329607
NCBI GeneID	5141
NCBI Accession #	NM_001111307.1
NCBI GenBank Nucleotide #	NM_001111307
UniProt Accession #	P27815; O75522; O76092; Q16255; Q16691; Q5DM53; Q6PMT2; Q8IVA7; Q8WUQ3; Q9H3H2
Molecular Weight	~110 kDa
NCBI Official Full Name	Homo sapiens phosphodiesterase 4A (PDE4A), transcript variant 1, mRNA
NCBI Official Synonym Full Names	phosphodiesterase 4A
NCBI Official Symbol	PDE4A
NCBI Official Synonym Symbols	PDE4; DPDE2; PDE46
NCBI Protein Information	cAMP-specific 3',5'-cyclic phosphodiesterase 4A
UniProt Protein Name	cAMP-specific 3',5'-cyclic phosphodiesterase 4A
UniProt Gene Name	PDE4A
UniProt Synonym Gene Names	DPDE2

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/sf9-active-protein/pde4a/73103>