Recombinant Human PDE9A Protein (His & GST Tag)

Catalog Number: PKSH031015



Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description

Synonyms HSPDE9A2
Species Human

Expression Host Baculovirus-Insect Cells

SequenceMet 1-Ala 533AccessionO76083-2Calculated Molecular Weight89.5 kDaObserved molecular weight75 kDaTagN-His-GST

Properties

Purity > 90 % as determined by reducing SDS-PAGE.

Endotoxin $< 1.0 \text{ EU per } \mu \text{g of the protein as determined by the LAL method.}$

Storage Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to

-80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots

of reconstituted samples are stable at < -20°C for 3 months.

Shipping This product is provided as lyophilized powder which is shipped with ice packs.

Formulation Lyophilized from sterile 20mM Tris, 500mM NaCl, 5mM GSH, pH 7.4, 10%

glycerol

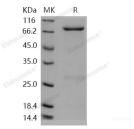
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as

protectants before lyophilization.

Please refer to the specific buffer information in the printed m

Reconstitution Please refer to the printed manual for detailed information.

Data



> 90 % as determined by reducing SDS-PAGE.

Background

High affinity cGMP-specific 3';5'-cyclic phosphodiesterase 9A; also known as PDE9A; is a member of the cyclic nucleotide phosphodiesterase family and PDE9 subfamily. PDE9A is 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 of PDE9A is in brain; heart; kidney; spleen; prostate and colon. IsoformPDE9A12is found in prostate. PDE9A mRNA is widely distributed throughout the rat and mouse brain; with the highest expression observed in cerebellar Purkinje cells.PDE9A is the only cGMP-specific PDE with significant expression in the forebrain; and as such is likely to play an important role in NO-cGMP signaling. PDE9A is highly conserved between species and is widely

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distributed throughout the rodent brain. PDE9A is probably involved in maintenance of low cGMP levels in cells and might play an important role in a variety of brain functions involving cGMP-mediated signal transduction. PDE9A hydrolyzes the second messenger cGMP; which is a key regulator of many important physiological processes. PDE9A represents a novel drug target worthy of further study.

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