Recombinant Human PDE9A Protein (His tag)

Cat.NO.: TP06458

3th Edition

Synonyms:HSPDE9A2

Description: 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. Isoform PDE9A12 is 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 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.

Form:PBS

Molecular Weight:40 kDa

Sequences: Pro 181-Lys 506

Purity:> 95% by HPLC

Concentration:

Endotoxin Level:<1.0 EU per 1 ug of protein (determined by LAL method)

Storage: Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.