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PDE2A Control Peptide

Alternate names: Phosphodiesterase 2A4, cGMP-stimulated phosphodiesterase 4

Catalog No.: AP10206CP-N

Quantity: 0.1 mg

Background: Cyclic nucleotides are important intracellular second messengers which play important role variety of signal transduction process. The cyclic nucleotides are hydrolyzed and compartmentalized by a family of enzymes called phosphodieterases. One of the many phosphodiesterases that compartmentalized and hydrolyze cAMP and cGMP in to AMP and GMP respectively are phosphodiesterase type 2 There are two member of PDE2A gene are cloned and designated as PD2A and PDE2B (Rascon et. al., 2002). Each of the PDE2A and PDE2B genes are 2793 Bases and 930 amino acids with an apparent MW of 100 kDA. The catalytic domain of PDE2A is homologous to all other 11 PDE family members. The PDE2A has specificity for cAMP with Km of 2.4 uM and its activity is modulated by the presence of cGMP. In contrast, the PDE2B does not hydrolyze cGMP nor its activity is altered by the presence of cGMP. Western blot analyses of PDE2A reveals a variety of tissues including neocortex, cerebellum, heart, kidney lungs, pulmonary artery and skeletal muscle (Sadhu et. al., 2002). The PDE2A expression was evident in venous arterial endothelial cells but not in arterial endothelial cells (Sadhu et. al., 1999). The PDE2A expression was also noted in corpus cavernosum along with a wide repertoire of other PDEs enzymes (Kuthe et. al., 1999).

Uniprot ID: Q5J793

NCBI: 9606

Format: **State:** Liquid synthetic peptide

Description: Antigenic blocking peptide for AP10206PU-N

Storage: Store (in aliquots) at -20 °C. Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General Readings:
1. Rascon A., Soderling SH, Schaefer and Beavo JA. Proc. Natl. Acad. Sci. USA 2002; 299, 4714-4719.
2. Sadhu K., Hanseley, K, V. L. Florio, and Folda, SA. J. Histochem and Cytochem. 47, 895-906, 1999.
3. Kuthe A., Widenroth, A., Magret J. H., et. al., J. Urol. 2001. 165, 280-283.
4. Farooqui S. M. Hamdi A., Brock J., Prasad C. J. Neurochem 57;1363-369, 1991.