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Product datasheet for AP23445SU-S

cAMP / cyclic AMP Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	R
Recommended Dilution:	RIA. Antigen binding capacity: Dilutions 1/5000 bound 45-50% of the labelled (radioactive) nucleotide.
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Succinyl cAMP- Human Serum Albumin conjugate
Specificity:	Cross-reactivity at 50% displacement: AMP < 0.00001% ADP < 0.00002% ATP < 0.00001% cGMP < 0.001%
Formulation:	State: Serum State: Lyophilized Serum
Reconstitution Method:	Restore in 20 µl aqua bidest
Conjugation:	Unconjugated
Storage:	Store lyophilized at 2-8°C and reconstituted at -20°C. Avoid repeated freezing and thawing.
Stability:	Shelf life: One year from despatch.

View online »

Background:

Cyclic adenosine monophosphate (cAMP) plays a key role as an intracellular second messenger for transduction events that follow a number of extracellular signals. The G-Protein Coupled Receptors (GPCR) is the largest family of cell surface receptors. They can be activated by different ligands, such as neurotransmitters, hormones, ions, small molecules, peptides, and other physiological signaling molecules. Typically, the binding of the ligands to its receptor resulting in the activation of G-proteins, in return, activates the effector adenylyl cyclase evoking the production of cAMP. The activation of a protein kinase by cAMP results in the phosphorylation of substrate proteins. Currently successful drugs in marketing have been developed to target these receptors. Among the GPCRs, ~367 receptors are potential drug development targets, but only about 20 have been used to generate therapeutically and commercially successful drugs so far. Because the involvement of cAMP can amplify the response of the ligand binding, the second messenger cAMP has been largely employed to monitor the activation of the GPCR to facilitate the therapeutic drug discovery.