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[Marker Primary Antibody]

Rabbit Anti-PKA regulatory subunit I beta/AF647 Conjugated antibody

Catalog Number: SL3965R-AF647

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Anti-PKA regulatory subunit I beta/AF647
Immunogen:	KLH conjugated synthetic peptide derived from human PKA regulatory subunit I beta
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Applications:	IF=1:100-500 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	(predicted:Human,Mouse,Rat)
Background:	background: cAMP is a signaling molecule important for a variety of cellular functions. cAMP exerts its effects by activating the cAMP-dependent protein kinase, which transduces the signal through phosphorylation of different target proteins. The inactive kinase holoenzyme is a tetramer composed of two regulatory and two catalytic subunits. cAMP causes the dissociation of the inactive holoenzyme into a dimer of regulatory subunits bound to four cAMP and two free monomeric catalytic subunits. Four different regulatory subunits and three catalytic subunits have been identified in humans. The protein encoded by this gene is a member of the Ser/Thr protein kinase family and is a catalytic subunit of cAMP-dependent protein kinase. Several alternatively spliced transcript variants encoding distinct isoforms have been observed. [provided by RefSeq, Jun 2011]. **Function:** Four types of regulatory chains are found: I-alpha, I-beta, II-alpha, and II-beta. Their expression varies among tissues and is in some cases

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	constitutive and in others inducible. **Subunit:** Belongs to the cAMP-dependent kinase regulatory chain family. Contains 2 cyclic nucleotide-binding domains. **Subcellular Location:** Cytoplasm. Cell membrane. Nucleus. Note=Translocates into the nucleus (monomeric catalytic subunit). The inactive holoenzyme is found in the cytoplasm. **Tissue Specificity:** Isoform 1 is most abundant in the brain, with low level expression in kidney. Isoform 2 is predominantly expressed in thymus, spleen and kidney. Isoform 3 and isoform 4 are only expressed in the brain. **Post-translational modifications:** Asn-3 is partially deaminated to Asp giving rise to 2 major isoelectric variants, called CB and CA respectively (By similarity). **Similarity:** Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. cAMP subfamily. Contains 1 AGC-kinase C-terminal domain. Contains 1 protein kinase domain. **Database links:** UniProtKB/Swiss-Prot: P22694.2 Important **Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.