

Kinase A regulatory subunit-1 alpha Active Protein | PKAR-1a active protein

Recombinant Human Protein Kinase A regulatory subunit-1 alpha

CATALOG #
AAA38384

HOST
E Coli

PRODUCT SYNONYMS

Kinase A regulatory subunit-1 alpha; Recombinant Human Protein Kinase A regulatory subunit-1 alpha; PKAR-I alpha Human; Protein Kinase A regulatory subunit-1 alpha Human Recombinant; cAMP-dependent protein kinase type I-alpha regulatory subunit; Tissue-specific extinguisher 1; TSE1; PRKAR1A PKR1; PRKAR1; CAR; CNC; CNC1; PKR1; ADOHR; PPNAD1; ACRDYS1; PKAR-1a active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 95% as determined by SDS-PAGE.
Form/Format	PKA regulatory subunit-I alpha is supplied at a concentration of 1.3 mg/ml in 20mM MOPS (pH 7.0), 150mM NaCl, 1mM 2-mercaptoethanol and 50% glycerol. Sterile Filtered clear solution.
Sequence Length	381
Inhibitory Activity	The cAMP-dependent protein kinase, regulatory subunit RIa reversibly inhibits the catalytic subunit Ca of the cAMP-dependent protein kinase PKA. The inhibition of the catalytic subunit can be reversed by the addition of the second messenger cAMP.
Preparation and Storage	PKAR-Ia should be stored at 4 degree C if entire vial will be used within 2-4 weeks. For long term storage it is recommended to store at -20 degree C. Avoid multiple freeze-thaw cycles.

ADDITIONAL INFORMATION

Related Product Information for PKAR-1a active protein	Description: PKA regulatory subunit I a Human Recombinant is a dimeric 86kDa protein (the monomer is 381 aa 43kDa). PKAR-I alpha is purified by proprietary chromatographic techniques. Introduction: The Regulatory (R) subunit of Protein Kinase A (PKA) inhibits its kinase activity by shielding the Catalytic (C) subunit from physiological substrates. This inhibition is reversed in response to extra-cellular signals that increase cAMP levels in the cytoplasm. Upon cAMP binding to R, C is allosterically released from R, activating a spectrum of downstream signaling cascades. Crystallographic data indicated that a series of distinct conformational changes within CBD-A must occur to relay the cAMP signal from the cAMP binding site to the R:C interaction interface. One critical cAMP relay site within the CBD-A of R has been identified as Asp170 because the D170A mutation selectively reduces the negative cooperativity between the cAMP- and C-recognition sites (i.e. the KD for the R:C complex in the presence of cAMP is reduced by more than 12-fold), without significantly compromising the high affinity of R for both binding partners.
Product Categories/Family for PKAR-1a active protein	Protein Kinases; Enzymes; Protein Kinase-A

NCBI AND UNIPROT INFORMATION

NCBI GI #	443497964
NCBI GeneID	5573
NCBI Accession #	NP_001263218.1
NCBI GenBank Nucleotide #	NM_001276289.1

UniProt Accession #	P10644 ; Q567S7 ; K7ER48
Molecular Weight	38,003 Da
NCBI Official Full Name	cAMP-dependent protein kinase type I-alpha regulatory subunit isoform a
NCBI Official Synonym Full Names	protein kinase, cAMP-dependent, regulatory, type I, alpha
NCBI Official Symbol	PRKAR1A
NCBI Official Synonym Symbols	CAR; CNC; CNC1; PKR1; TSE1; ADOHR; PPNAD1; PRKAR1; ACRDYS1
NCBI Protein Information	cAMP-dependent protein kinase type I-alpha regulatory subunit; Carney complex type 1; cAMP-dependent protein kinase regulatory subunit RIalpha; cAMP-dependent protein kinase type I-alpha regulatory chain; protein kinase A type 1a regulatory subunit; tissue-specific extinguisher 1
UniProt Protein Name	cAMP-dependent protein kinase type I-alpha regulatory subunit
UniProt Gene Name	PRKAR1A
UniProt Synonym Gene Names	PKR1; PRKAR1; TSE1; TSE1
UniProt Entry Name	KAP0_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/e-coli-pkar-1a-active-protein/kinase-a-regulatory-subunit-1-alpha/38384>