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PKA R2 (PKR2) Antibody (N-term) Blocking peptide
Synthetic peptide
Catalog # BP8096a

Specification

PKA R2 (PKR2) Antibody (N-term) Blocking peptide - Product Information

Primary Accession	P13861
Other Accession	KAP2_HUMAN

PKA R2 (PKR2) Antibody (N-term) Blocking peptide - Additional Information

Gene ID 5576

Other Names
cAMP-dependent protein kinase type II-alpha regulatory subunit, PRKAR2A, PKR2, PRKAR2

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP8096a was selected from the N-term region of human PKR2 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

PKA R2 (PKR2) Antibody (N-term) Blocking peptide - Protein Information

Name PRKAR2A

Synonyms PKR2, PRKAR2

Function
Regulatory subunit of the cAMP-dependent protein kinases involved in cAMP signaling in cells. Type II regulatory chains mediate membrane association by binding to anchoring proteins, including the MAP2 kinase.

Cellular Location
Cytoplasm. Cell membrane. Note=Colocalizes with PJA2 in the cytoplasm and the cell membrane

Tissue Location
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 constitutive and in others inducible

PKA R2 (PKR2) Antibody (N-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

PKA R2 (PKR2) Antibody (N-term) Blocking peptide - Images

PKA R2 (PKR2) Antibody (N-term) Blocking peptide - Background

cAMP is a signaling molecule important for a variety of cellular functions. cAMP exerts its effects by activating the cAMP-dependent protein kinase (AMPK), which transduces the signal through phosphorylation of different target proteins. The inactive holoenzyme of AMPK 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 of AMPK have been identified in humans. PKR2 is one of the regulatory subunits. This subunit can be phosphorylated by the activated catalytic subunit. It may interact with various A-kinase anchoring proteins and determine the subcellular localization of AMPK. This subunit has been shown to regulate protein transport from endosomes to the Golgi apparatus and further to the endoplasmic reticulum (ER).

PKA R2 (PKR2) Antibody (N-term) Blocking peptide - References

MacDougall, M.W., et al., J. Clin. Endocrinol. Metab. 88(5):2194-2205 (2003).Birkeli, K.A., et al., J. Biol. Chem. 278(3):1991-1997 (2003).Sun, F., et al., J. Biol. Chem. 275(19):14360-14366 (2000).Zakhary, D.R., et al., J. Biol. Chem. 275(52):41389-41395 (2000).Tasken, K., et al., Genomics 50(3):378-381 (1998).