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Protein Kinase A regulatory subunit I beta Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7051a

Specification

Protein Kinase A regulatory subunit I beta Antibody (N-term) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	P31321
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**43073**
Antigen Region	**50-80**

Protein Kinase A regulatory subunit I beta Antibody (N-term) - Additional Information

Gene ID 5575

Other Names
cAMP-dependent protein kinase type I-beta regulatory subunit, PRKAR1B

Target/Specificity
This Protein Kinase A regulatory subunit I beta antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 50-80 amino acids from the N-terminal region of human Protein Kinase A regulatory subunit I beta.

Dilution
WB~~1:1000
IHC-P~~1:50~100

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Protein Kinase A regulatory subunit I beta Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Kinase A regulatory subunit I beta Antibody (N-term) - Protein Information

Name PRKAR1B

Function Regulatory subunit of the cAMP-dependent protein kinases involved in cAMP signaling in

cells.

Cellular Location
Cell membrane.

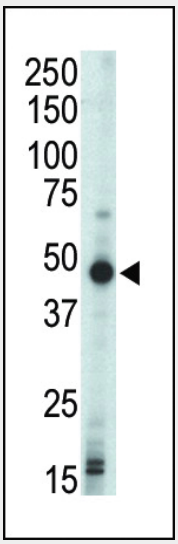
Tissue Location
Four types of regulatory chains are found: I-alpha, I-beta, II-alpha, and II-beta. Their expression varies among tissues and is in some cases constitutive and in others inducible

Protein Kinase A regulatory subunit I beta Antibody (N-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Protein Kinase A regulatory subunit I beta Antibody (N-term) - Images



Western blot analysis of anti-PRKAR1B Pab (Cat. #AP7051a) in mouse liver tissue lysate. PRKAR1B (arrow) was detected using purified Pab. Secondary HRP-anti-rabbit was used for signal visualization with chemiluminescence.

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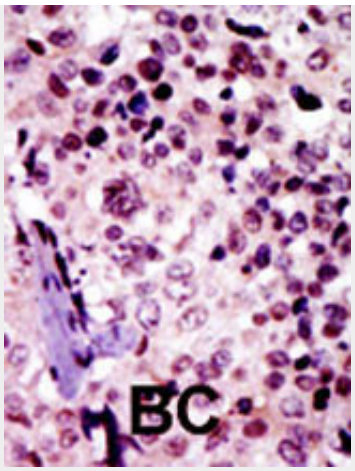

Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

Protein Kinase A regulatory subunit I beta Antibody (N-term) - Background

The second messenger cyclic AMP (cAMP) mediates diverse cellular responses to external signals such as proliferation, ion transport, regulation of metabolism and gene transcription by activation of the cAMP-dependent protein kinase (cAPK or PKA). Activation of PKA occurs when cAMP binds to the two regulatory subunits of the tetrameric PKA holoenzyme resulting in release of active catalytic subunits. Three catalytic (C) subunits have been identified, designated Cα, Cβ and Cγ, that each represent specific gene products. Cα and Cβ are closely related (93% amino acid sequence similarity), whereas Cγ displays 83% and 79% similarity to Cα and Cβ, respectively. Activation of transcription upon elevation of cAMP levels results from translocation of PKA to the nucleus where it phosphorylates the transcription factor cAMP response element binding protein (CREB) on serine 133 which in turn leads to TFIIB binding to TATA-box-binding protein TBP1, thus linking phospho-CREB to the pol II transcription initiation complex.

Protein Kinase A regulatory subunit I beta Antibody (N-term) - References

Solberg, R., et al., Exp. Cell Res. 214(2):595-605 (1994).
Solberg, R., et al., Biochem. Biophys. Res. Commun. 176(1):166-172 (1991).