

Anti-Phospho-PKA alpha/beta/gamma (catalytic subunit) (T197) Antibody [JE45-17]

HA721864



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB
Molecular Wt:	Predicted band size: 40 kDa
Clone number:	JE45-17

Description: The catalytic subunit α of protein kinase A is a key regulatory enzyme that in humans is encoded by the PRKACA gene. cAMP-dependent protein kinase catalytic subunit beta is an enzyme that in humans is encoded by the PRKACB gene. cAMP-dependent protein kinase catalytic subunit gamma is an enzyme that in humans is encoded by the PRKACG gene. cAMP is a signaling molecule important for a variety of cellular functions. cAMP exerts its effects by activating the protein kinase A (PKA), which transduces the signal through phosphorylation of different target proteins. The inactive holoenzyme of PKA 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 PKA have been identified in humans. Defective regulation of PKA holoenzyme activity has been linked to the progression of cardiovascular disease, certain endocrine disorders and cancers.

Immunogen: Synthetic phosphopeptide corresponding to residues surrounding Thr197 of PKA C-gamma.

Positive control: NIH/3T3 cell lysate, C6 cell lysate, HeLa cell lysate, HeLa serum starved overnight then treated with 100nM Calyculin A for 1 hour cell lysate.

Subcellular location: Cytoplasm, Cell membrane, Nucleus.

Database links: SwissProt: P17612 Human | P22694 Human | P22612 Human | P05132 Mouse | P27791 Rat

Recommended Dilutions:

WB 1:1,000

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4°C after thawing. Aliquot store at -20°C. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn

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Images

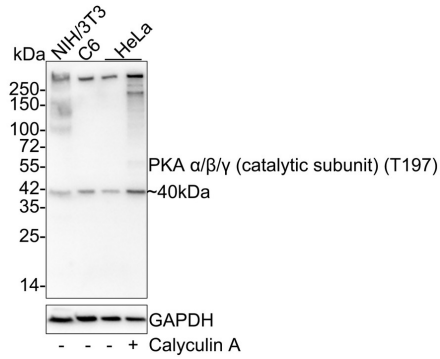


Fig1: Western blot analysis of Phospho-PKA alpha/beta/gamma (catalytic subunit) (T197) on different lysates with Rabbit anti-Phospho-PKA alpha/beta/gamma (catalytic subunit) (T197) antibody (HA721864) at 1/1,000 dilution.

Lane 1: NIH/3T3 cell lysate

Lane 2: C6 cell lysate

Lane 3: HeLa cell lysate

Lane 4: HeLa serum starved overnight then treated with 100nM Calyculin A for 1 hour cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 40 kDa

Observed band size: 40 kDa

Exposure time: 46 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA721864) at 1/1,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Bauer J et al. The oncogenic fusion protein DNAJB1-PRKACA can be specifically targeted by peptide-based immunotherapy in fibrolamellar hepatocellular carcinoma. Nat Commun. 2022 Oct
2. Palencia-Campos A et al. Germline and Mosaic Variants in PRKACA and PRKACB Cause a Multiple Congenital Malformation Syndrome. Am J Hum Genet. 2020 Nov

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