**PKAα/β/γ cat (B-4): sc-365615**

**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 (AMPK 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 Ca, Cβ and Cγ, that each represent specific gene products. Ca and Cβ are closely related (93% amino acid sequence similarity), whereas Cγ displays 83% and 79% similarity to Ca 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 TFII-B binding to TATA-box-binding protein TBP1, thus linking phospho-CREB to the pol II transcription initiation complex.

**REFERENCES**


**SOURCE**

PKAα/β/γ cat (B-4) is a mouse monoclonal antibody raised against amino acids 226-320 mapping near the C-terminus of PKAα cat of human origin.

**PRODUCT**

Each vial contains 200 μg IgGκ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PKAα/β/γ cat (B-4) is available conjugated to agarose (sc-365615 AC), 500 μg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365615 HRP), 200 μg/ml, for WB, IP (HCP) and ELISA; to either phycoerythrin (sc-365615 PE), fluorescein (sc-365615 FITC), Alexa Fluor® 488 (sc-365615 AF488), Alexa Fluor® 546 (sc-365615 AF546), Alexa Fluor® 594 (sc-365615 AF594) or Alexa Fluor® 647 (sc-365615 AF647), 200 μg/ml, for WB (RGB), IF, IHC/IP and FCM; and to either Alexa Fluor® 680 (sc-365615 AF680) or Alexa Fluor® 790 (sc-365615 AF790), 200 μg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

PKAα/β/γ cat (B-4) is recommended for detection of PKAα cat, PKAβ cat and PKAγ cat of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation (1-2 μg per 100-500 μg of total protein (1 ml of cell lysate), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of PKAα/β/γ cat: 40 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, PC-3 cell lysate: sc-2220 or NIH/3T3 whole cell lysate: sc-2210.

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**DATA**

![PKAα/β/γ cat (B-4): sc-365615. Western blot analysis of PKAα/β/γ cat expression in MCF7](image1)

![PKAα/β/γ cat (B-4): sc-365615. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization](image2)

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.