**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. 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. Mouse Serine 96 (designated Ser 99 in human) is a putative phosphorylation site on the PKA IIα regulatory subunit.

**CHROMOSOMAL LOCATION**

Genetic locus: PRKAR2A (human) mapping to 3p21.31; Prkar2a (mouse) mapping to 9 F2.

**SOURCE**

p-PKA IIα reg (Ser 96) is available as either goat (sc-12905) or rabbit (sc-12905-R) affinity purified polyclonal antibody raised against a short amino acid sequence containing Ser 96 phosphorylated p-PKA IIα reg of mouse origin.

**PRODUCT**

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-12905 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

**APPLICATIONS**

p-PKA IIα reg (Ser 96) is recommended for detection of Ser 96 phosphorylated cAMP-dependent protein kinase type II-α regulatory subunit of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

p-PKA IIα reg (Ser 96) is also recommended for detection of correspondingly phosphorylated cAMP-dependent protein kinase type II-α regulatory subunit in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PKA IIα reg siRNA (h): sc-39164, PKA IIα reg siRNA (m): sc-39165, PKA IIα reg shRNA Plasmid (h): sc-39164-SH, PKA IIα reg shRNA Plasmid (m): sc-39165-SH, PKA IIα reg shRNA (h) Lentiviral Particles: sc-39164-V and PKA IIα reg shRNA (m) Lentiviral Particles: sc-39165-V.

Molecular Weight of p-PKA IIα reg: 40 kDa.

Positive Controls: mouse brain extract: sc-2253, NIH/3T3 whole cell lysate: sc-2210 or KNRK whole cell lysate: sc-2214.

**STORAGE**

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

**DATA**

![Image](https://via.placeholder.com/150)

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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

**MONOS**

Try p-PKA IIα reg (C-5): sc-377575, our highly recommended monoclonal alternative to p-PKA IIα reg (Ser 96).