PKR (B-10): sc-6282

**BACKGROUND**
An interferon-inducible, RNA-dependent protein serine/threonine kinase (PKR) has been described. PKR in earlier literature is variously known as DAI, dsJ, PI kinase, p65, p67 or TIK for the mouse kinase; and p68 or p69 for the human kinase. The PKR kinase substrate is the a subunit of protein synthesis initiation factor eif-2. Phosphorylation of eif-2alpha on serine-51 results in inhibition of translation. Molecular cDNA clones have been isolated from both human and mouse cells. The serine/threonine kinase catalytic domains map to the carboxy terminal half of the protein while the RNA-binding domains are located in the amino terminal region. Three kinds of regulation of PKR enzymatic activity have been described. These include transcriptional regulation in response to interferon, an autoregulatory mechanism controlling PKR expression at the level of translation and post-translational regulation by RNA mediated autophosphorylation.

**CHROMOSOMAL LOCATION**
Genetic locus: Elf2aK2 (human) mapping to 2p22.2; Elf2ak2 (mouse) mapping to 17E3.

**SOURCE**
PKR (B-10) is a mouse monoclonal antibody raised against amino acids 1-515 of PKR of mouse origin.

**PRODUCT**
Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.
PKR (B-10) is available conjugated to agarose (sc-6282 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-6282 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-6282 PE), fluorescein (sc-6282 FITC), Alexa Fluor® 488 (sc-6282 AF488) or Alexa Fluor® 647 (sc-6282 AF647), 200 µg/ml, for IF, IHC(P) and FCM.

**APPLICATIONS**
PKR (B-10) is recommended for detection of PKR of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500). Suitable for use as control antibody for PKR siRNA (h): sc-36263, PKR siRNA (m): sc-36264, PKR shRNA Plasmid (h): sc-36263-SH, PKR shRNA Plasmid (m): sc-36264-SH, PKR shRNA (h) Lentiviral Particles: sc-36263-V and PKR shRNA (m) Lentiviral Particles: sc-36264-V.

Molecular Weight of PKR: 68 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, A-431 whole cell lysate: sc-2201 or HeLa whole cell lysate: sc-2200.

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

**RESEARCH USE**
For research use only, not for use in diagnostic procedures.

**DATA**

**PRODUCT CITATIONS**


**SELECT PROTOCOLS**
See our website at www.scbt.com for detailed protocols and support products.

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