

KKIAMRE (D-23): sc-130794

BACKGROUND

The activation of signal transduction pathways by growth factors, hormones and neurotransmitters is mediated by the MAP kinases ERK 1 and ERK 2. ERK proteins are regulated by dual phosphorylation at specific tyrosine and threonine sites mapping within a characteristic Thr-Glu-Tyr motif. The protein kinase p56 KKIAMRE is distantly related to the MAP kinase group of proteins and is closely related to p42 KKIALRE. KKIAMRE is predominantly expressed in testis, kidney, brain and lung. KKIAMRE contains the conserved MAP kinase dual phosphorylation motif in the sequence Thr-Asp-Tyr and is activated by treatment of cells by EGF. However, unlike other MAP kinases, the EGF-stimulated kinase activity does not require phosphorylation of KKIAMRE and KKIALRE in the Thr-Asp-Tyr motif.

REFERENCES

1. Boulton, T.G., et al. 1991. Identification of multiple extracellular signal-related kinases (ERKs) with antipeptide antibodies. *Cell Reg.* 2: 357-371.
2. Boulton, T.G., et al. 1991. ERKs: a family of protein-serine/threonine kinases that are activated and tyrosine phosphorylated in response to Insulin and NGF. *Cell* 65: 663-675.
3. Crews, C.M., et al. 1992. Purification of a murine protein-tyrosine/threonine kinase that phosphorylates and activates the Erk-1 gene product: relationship to the fission yeast *byr1* gene product. *Proc. Natl. Acad. Sci. USA* 89: 8205-8209.
4. Crews, C.M., et al. 1992. The primary structure of MEK, a protein kinase that phosphorylates the ERK gene product. *Science* 258: 478-480.
5. Meyerson, M., et al. 1992. A family of human *cdc2*-related protein kinases. *EMBO J.* 11: 2909-2917.
6. Taglienti, C.A., et al. 1996. Molecular cloning of the epidermal growth factor-stimulated protein kinase p56 KKIAMRE. *Oncogene* 13: 2563-2574.

CHROMOSOMAL LOCATION

Genetic locus: CDKL2 (human) mapping to 4q21.1.

SOURCE

KKIAMRE (D-23) is a purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of KKIAMRE of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

KKIAMRE (D-23) is recommended for detection of KKIAMRE of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for KKIAMRE siRNA (h): sc-37581, KKIAMRE shRNA Plasmid (h): sc-37581-SH and KKIAMRE shRNA (h) Lentiviral Particles: sc-37581-V.

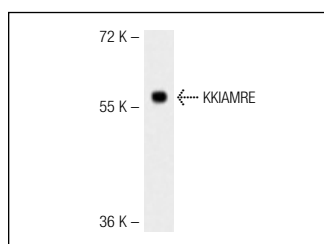
Molecular Weight of KKIAMRE: 56 kDa.

Positive Controls: 293 cell lysate.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



KKIAMRE (D-23): sc-130794. Western blot analysis of KKIAMRE expression in 293 cell lysate.

RESEARCH USE

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