SANTA CRUZ BIOTECHNOLOGY, INC.

ICK (G-8): sc-365244

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Intestinal cell kinase (ICK), also designated MRK, LCK2, KIAA0936 and MGC46090, is a nuclear Cdc2-related kinase. ICK shares nearly identical N-terminal catalytic domains with male germ cell-associated kinase (MAK), however the C-terminal noncatalytic domain of intestinal cell kinase diverges from that of MAK. The catalytic domain of ICK is also related to mitogen-activated protein kinases (MAPKs) and harbors a corresponding TDY motif, the dual phosphorylation of which activates ICK. The phosphorylation of Tyr 159 in the TDY motif requires ICK autokinase activity, but confers only basal kinase activity; full activation of the protein requires additional phosphorylation of Thr 157 in the TDY motif.

REFERENCES

1. Coudronnière, N., et al. 1998. The ICK protein tyrosine kinase is not involved in antibody-mediated CD4 (CDR3-loop) signal transduction that inhibits HIV-1 transcription. Eur. J. Immunol. 28: 1445-1457.
2. Togawa, K., et al. 2000. Intestinal cell kinase (ICK) localizes to the crypt region and requires a dual phosphorylation site found in MAP kinases. J. Cell. Physiol. 183: 129-139.
3. Sorice, M., et al. 2000. Association between GM3 and CD4-ICK complex in human peripheral blood lymphocytes. Glycoconj. J. 17: 247-252.
4. Fu, Z., et al. 2005. Activation of a nuclear Cdc2-related kinase kinase-like TDY motif by autophosphorylation and cyclin-dependent protein kinase-activating kinase. Mol. Cell. Biol. 25: 6047-6064.
5. Gillies, S.D., et al. 2005. An anti-CD20-IL-2 immunocytokine is highly efficacious in a SCID mouse model of established human B lymphoma. Blood 105: 3972-3978.
6. Suzuki, T., et al. 2006. Mutation analyses of genes on 6p12-p11 in patients with juvenile myoclonic epilepsy. Neurosci. Lett. 405: 126-131.

CHROMOSOMAL LOCATION

Genetic locus: ICK (human) mapping to 6p12.2; Ick (mouse) mapping to 9 E1.

SOURCE

ICK (G-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 579-611 near the C-terminus of ICK of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-365244 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

ICK (G-8) is recommended for detection of ICK 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), 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).

ICK (G-8) is also recommended for detection of ICK in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ICK siRNA (h): sc-60861, ICK siRNA (m): sc-60862, ICK shRNA Plasmid (h): sc-60861-SH, ICK shRNA Plasmid (m): sc-60862-SH, ICK shRNA (h) Lentiviral Particles: sc-60861-V and ICK shRNA (m) Lentiviral Particles: sc-60862-V.

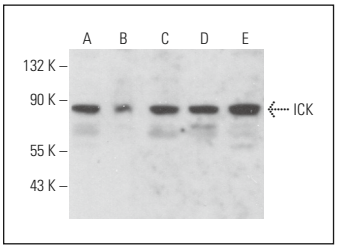
Molecular Weight of ICK: 71 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, JAR cell lysate: sc-2276 or MDA-MB-231 cell lysate: sc-2232.

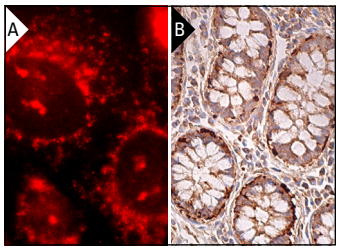
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



ICK (G-8): sc-365244. Western blot analysis of ICK expression in SW480 (**A**), PC-3 (**B**), JAR (**C**), HL-60 (**D**) and MDA-MB-231 (**E**) whole cell lysates.



ICK (G-8): sc-365244. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing cytoplasmic staining of glandular cells (**B**).

RESEARCH USE

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