SANTA CRUZ BIOTECHNOLOGY, INC.

ELKS (H-48): sc-135215

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The glutamine, leucine, lysine, and serine-rich protein ELKS, also designated Rab6-interacting protein 2 and CAZ-associated structural protein (CAST) or the acronym ERC, is a member of a family of RIM-binding proteins. RIMs are presynaptic active zone proteins that regulate neurotransmitter release. This class of protein functions by recruiting IκBα to the IκB kinase (IKK) complex, and thus serves a regulatory function for IKK activation. Five isoforms of ELKS (α, β, γ, δ, and ε) exist and have multiple coding region differences and distinct C-termini. Only brain-specific ELKS bind to RIMs, but both ubiquitous and brain-specific ELKS bind to Rab6, a GTP-binding protein involved in membrane traffic at the Golgi complex. Fusion of ELKS to RET due to translocation t(10;12)(q11;p13) results in a papillary thyroid carcinoma.

REFERENCES

1. Nakata, T., et al. 1999. Fusion of a novel gene, ELKS, to RET due to translocation t(10;12)(q11;p13) in a papillary thyroid carcinoma. Genes Chromosomes Cancer 25: 97-103.
2. Wang, Y., et al. 2002. A family of RIM-binding proteins regulated by alternative splicing: Implications for the genesis of synaptic active zones. Proc. Natl. Acad. Sci. USA 99: 14464-14469.

CHROMOSOMAL LOCATION

Genetic locus: ERC1 (human) mapping to 12p13.33; Erc1 (mouse) mapping to 6 F1.

SOURCE

ELKS (H-48) is a rabbit polyclonal antibody raised against amino acids 112-159 mapping near the N-terminus of ELKS of human origin.

PRODUCT

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

APPLICATIONS

ELKS (H-48) is recommended for detection of ELKS 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ELKS (H-48) is also recommended for detection of ELKS in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for ELKS siRNA (h): sc-60572, ELKS siRNA (m): sc-60573, ELKS shRNA Plasmid (h): sc-60572-SH, ELKS shRNA Plasmid (m): sc-60573-SH, ELKS shRNA (h) Lentiviral Particles: sc-60572-V and ELKS shRNA (m) Lentiviral Particles: sc-60573-V.

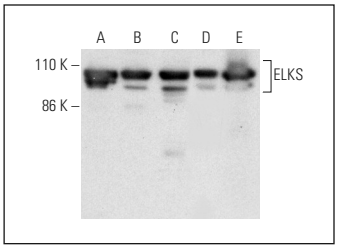
Molecular Weight of ELKS: 94 kDa.

Positive Controls: ELKS (m): 293T Lysate: sc-119999, HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

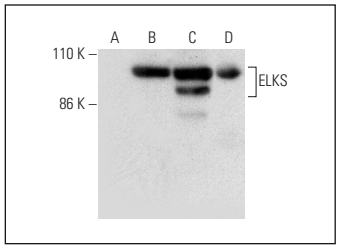
RECOMMENDED SECONDARY REAGENTS

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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ELKS (H-48): sc-135215. Western blot analysis of ELKS expression in COLO 320DM (**A**), HeLa (**B**), Jurkat (**C**) and A2058 (**D**) whole cell lysates and human pancreas tissue extract (**E**).



ELKS (H-48): sc-135215. Western blot analysis of ELKS expression in non-transfected 293T: sc-117752 (**A**), mouse ELKS transfected 293T: sc-119999 (**B**) and NTERA-2 cl.D1 (**C**) whole cell lysates and mouse testis tissue extract (**D**).

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.

PROTOCOLS

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