ERC2 (N-16): sc-70273

SANTA CRUZ®
BIOTECHNOLOGY

The Power to Question

BACKGROUND

ERC2, also known as CAST, ELKSL or SPBC110, is a 957 amino acid localized to the cytoplasm, cell junction, synapse and synaptosome. ERC2 is believed to play a role in the organization of the cytomatrix at the nerve terminals active zone (CAZ), which regulates neurotransmitter release. ERC2 is also thought to recruit liprin α proteins to the CAZ. ERC2 forms a complex with UNC13A and Rim1 and interacts with ERC1, basonuclin, Liprin α1, Liprin α2 and Liprin α3. ERC2 is expressed as two isoforms produced by alternative splicing.

REFERENCES

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3. Ko, J., et al. 2003. Interaction of the ERC family of Rim-binding proteins with the liprin α family of multidomain proteins. J. Biol. Chem. 278: 42377-42385.

4. Deguchi-Tawarada, M., et al. 2004. CAST2: identification and characterization of a protein structurally related to the presynaptic cytomatrix protein CAST. Genes Cells 9: 15-23.

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7. Ko, J., et al. 2006. Organization of the presynaptic active zone by ERC2/CAST1-dependent clustering of the tandem PDZ protein syntenin-1. J. Neurosci. 26: 963-970.

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CHROMOSOMAL LOCATION

Genetic locus: ERC2 (human) mapping to 3p14.3; Erc2 (mouse) mapping to 14 A3.

SOURCE

ERC2 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of ERC2 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.

Blocking peptide available for competition studies, sc-70273 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ERC2 (N-16) is recommended for detection of ERC2 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).

ERC2 (N-16) is also recommended for detection of ERC2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for ERC2 siRNA (h): sc-77281, ERC2 siRNA (m): sc-77282, ERC2 shRNA Plasmid (h): sc-77281-SH, ERC2 shRNA Plasmid (m): sc-77282-SH, ERC2 shRNA (h) Lentiviral Particles: sc-77281-V and ERC2 shRNA (m) Lentiviral Particles: sc-77282-V.

Molecular Weight of ERC2: 110 kDa.

Positive Controls: mouse brain extract: sc-2253.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA
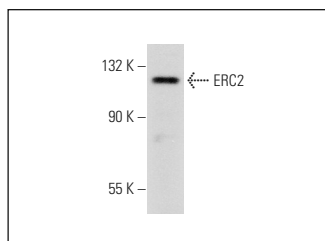
ERC2 (N-16): sc-70273. Western blot analysis of ERC2 expression in mouse brain tissue extract.

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.