

ERC2 (K-18): sc-70272

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 α 1, Liprin α 2 and Liprin α 3. ERC2 is expressed as two isoforms produced by alternative splicing.

REFERENCES

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- 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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- 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 (K-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ERC2 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-70272 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ERC2 (K-18) 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 μ g per 100-500 μ g 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 (K-18) is also recommended for detection of ERC2 in additional species, including equine, canine and porcine.

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.

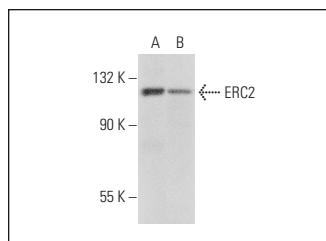
Molecular Weight of ERC2: 110 kDa.

Positive Controls: rat brain extract: sc-2392 or 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 (K-18): sc-70272. Western blot analysis of ERC2 expression in rat brain (A) and mouse brain (B) tissue extracts.

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.