

ERAB (C-20): sc-7689

BACKGROUND

β -Amyloid is a neurotoxic peptide that is associated with the pathogenesis of Alzheimer's disease. β -Amyloid aggregates induce cell death of neurons through the disruption of cell membranes and the generation of reactive oxygen intermediates. These neurotoxic effects are also attributed to the interaction of β -Amyloid with intracellular proteins, specifically ERAB, the endoplasmic reticulum-associated β -Amyloid-binding protein. ERAB is characterized as a NAD⁺-dependent dehydrogenase that is constitutively expressed in tissues and overexpressed in neurons affected in Alzheimer's disease. Cells overexpressing ERAB *in vitro* were shown to be more sensitive to β -Amyloid-induced stress, and blocking the activity of ERAB has been shown to inhibit this cell death, indicating that β -Amyloid induced cell death is mediated by ERAB.

CHROMOSOMAL LOCATION

Genetic locus: HSD17B10 (human) mapping to Xp11.22; Hsd17b10 (mouse) mapping to X F3.

SOURCE

ERAB (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of ERAB 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-7689 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

ERAB (C-20) is recommended for detection of ERAB 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).

ERAB (C-20) is also recommended for detection of ERAB in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ERAB siRNA (h): sc-41938, ERAB siRNA (m): sc-41939, ERAB shRNA Plasmid (h): sc-41938-SH, ERAB shRNA Plasmid (m): sc-41939-SH, ERAB shRNA (h) Lentiviral Particles: sc-41938-V and ERAB shRNA (m) Lentiviral Particles: sc-41939-V.

Molecular Weight of ERAB homotetramer: 108 kDa.

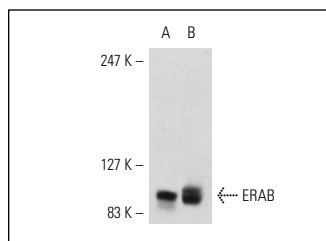
Molecular Weight of ERAB subunit: 27 kDa.

Positive Controls: SK-N-SH cell lysate: sc-2410, rat brain extract: sc-2392 or rat cerebellum extract: sc-2398.

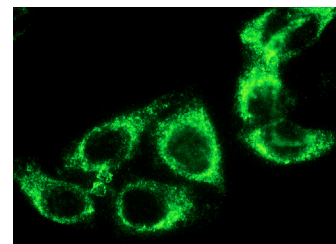
RECOMMENDED SECONDARY REAGENTS

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



ERAB (C-20): sc-7689. Western blot analysis of ERAB expression in SK-N-SH whole cell lysate (A) and rat brain tissue extract (B).



ERAB (C-20): sc-7689. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Sanges, D., et al. 2006. Cross-talk between two apoptotic pathways activated by endoplasmic reticulum stress: differential contribution of caspase-12 and AIF. *Apoptosis* 11: 1629-1641.

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.

MONOS
Satisfaction
Guaranteed

Try **ERAB (23): sc-136326** or **ERAB (E-10): sc-393693**, our highly recommended monoclonal alternatives to ERAB (C-20).