

EF-CAB1 (N-17): sc-87095

BACKGROUND

Made up of nearly 146 million bases, chromosome 8 encodes about 800 genes. Translocation of portions of chromosome 8 with amplifications of the c-Myc gene are found in some leukemias and lymphomas, and are typically associated with a poor prognosis. Portions of chromosome 8 have been linked to schizophrenia and bipolar disorder. Chromosome 8 is also associated with Pfeiffer syndrome, congenital hypothyroidism and Waardenburg syndrome. The gene encoding EF-CAB1 (EF-hand calcium-binding domain-containing peptide protein 1) is located on the long arm of chromosome 8. This 211 amino acid protein contains 3 EF-hand domains, which are helix-loop-helix structures that are usually found in calcium binding proteins. Other well-studied calcium binding proteins that contain EF-hand motifs include calmodulin (CaM), Troponin C, myosin regulatory light chain (MYL) and S-100 proteins.

REFERENCES

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2. Beyer, V., et al. 2005. Polysomy 8 defines a clinico-cytogenetic entity representing a subset of myeloid hematologic malignancies associated with a poor prognosis: report on a cohort of 12 patients and review of 105 published cases. *Cancer Genet. Cytogenet.* 160: 97-119.
3. Morgan, R.O., et al. 2006. Deciphering function and mechanism of calcium-binding proteins from their evolutionary imprints. *Biochim. Biophys. Acta* 1763: 1238-1249.
4. Lakowski, T.M., et al. 2007. Peptide binding by a fragment of calmodulin composed of EF-hands 2 and 3. *Biochemistry* 46: 8525-8536.
5. Capozzi, F., et al. 2007. Essential dynamics of helices provide a functional classification of EF-hand proteins. *J. Proteome Res.* 6: 4245-4255.
6. Paulsson, K., et al. 2007. Trisomy 8 as the sole chromosomal aberration in acute myeloid leukemia and myelodysplastic syndromes. *Pathol. Biol.* 55: 37-48.
7. Lakowski, T.M., et al. 2007. Calcium-induced folding of a fragment of calmodulin composed of EF-hands 2 and 3. *Protein Sci.* 16: 1119-1132.

CHROMOSOMAL LOCATION

Genetic locus: EFCAB1 (human) mapping to 8q11.21; Efcab1 (mouse) mapping to 16 A1.

SOURCE

EF-CAB1 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of EF-CAB1 of human origin.

STORAGE

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

PROTOCOLS

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

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-87095 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

EF-CAB1 (N-17) is recommended for detection of EF-CAB1 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).

EF-CAB1 (N-17) is also recommended for detection of EF-CAB1 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for EF-CAB1 siRNA (h): sc-77819, EF-CAB1 siRNA (m): sc-143300, EF-CAB1 shRNA Plasmid (h): sc-77819-SH, EF-CAB1 shRNA Plasmid (m): sc-143300-SH, EF-CAB1 shRNA (h) Lentiviral Particles: sc-77819-V and EF-CAB1 shRNA (m) Lentiviral Particles: sc-143300-V.

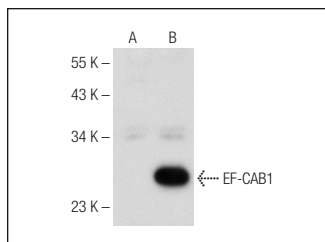
Molecular Weight of EF-CAB1: 24 kDa.

Positive Controls: EF-CAB1 (h): 293T Lysate: sc-114069.

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



EF-CAB1 (N-17): sc-87095. Western blot analysis of EF-CAB1 expression in non-transfected: sc-117752 (A) and human EF-CAB1 transfected: sc-114069 (B) 293T whole cell lysates.

RESEARCH USE

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