SANTA CRUZ BIOTECHNOLOGY, INC.

EF-1 β (C-16): sc-82870



BACKGROUND

EF-1 (elongation factor-1) is a multi-protein complex that is responsible for the delivery of aminoacyl-tRNAs to the ribosome. The EF-1 protein complex is composed of four subunits: EF-1 α , EF-1 β , EF-1 δ and EF-1 γ . EF-1 β is a 225 amino acid member of the EF-1 β /EF-1 δ protein family and contains one GST C-terminal domain. Both EF-1 β and EF-1 δ stimulate the exchange of GDP bound to EF-1 α to GTP. Phosphorylation of EF-1 β affects the GDP/GTP exchange rate. Alternative splicing events of the gene that encodes EF-1 β result in three transcript variants that differ only in the 5' UTR.

REFERENCES

- 1. Cho, D.I., et al. 2003. Direct and biochemical interaction between dopamine D3 receptor and elongation factor- $1B\beta\gamma$. Life Sci. 73: 2991-3004.
- Cans, C., et al. 2003. Translationally controlled tumor protein acts as a guanine nucleotide dissociation inhibitor on the translation elongation factor eEF1A. Proc. Natl. Acad. Sci. USA 100: 13892-13897.
- Ito, T., et al. 2004. Solution structure of human initiation factor eIF2α reveals homology to the elongation factor eEF1B. Structure 12: 1693-1704.
- McCracken, S., et al. 2005. Proteomic analysis of SRm160-containing complexes reveals a conserved association with cohesin. J. Biol. Chem. 280: 42227-42236.
- 5. Le Sourd, F., et al. 2006. eEF1B: At the dawn of the 21st century. Biochim. Biophys. Acta 1759: 13-31.
- Le Sourd, F., et al. 2006. Cellular coexistence of two high molecular subsets of eEF1B complex. FEBS Lett. 580: 2755-2760.
- Deng, S.S., et al. 2006. Comparative proteome analysis of breast cancer and adjacent normal breast tissues in human. Genomics Proteomics Bioinformatics 4: 165-172.
- Mazan-Mamczarz, K., et al. 2006. Translational repression by RNA-binding protein TIAR. Mol. Cell. Biol. 26: 2716-2727.
- Byun, H.O., et al. 2009. Cathepsin D and eukaryotic translation elongation factor 1 as promising markers of cellular senescence. Cancer Res. 69: 4638-4647.

CHROMOSOMAL LOCATION

Genetic locus: EEF1B2 (human) mapping to 2q33.3; Eef1b2 (mouse) mapping to 1 C2.

SOURCE

EF-1 β (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of EF-1 β 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-82870 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

EF-1 β (C-16) is recommended for detection of EF-1 β 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); non cross-reactive with other EF family members.

EF-1 β (C-16) is also recommended for detection of EF-1 β in additional species, including equine.

Suitable for use as control antibody for EF-1 β siRNA (h): sc-77236, EF-1 β siRNA (m): sc-77238, EF-1 β shRNA Plasmid (h): sc-77236-SH, EF-1 β shRNA Plasmid (m): sc-77238-SH, EF-1 β shRNA (h) Lentiviral Particles: sc-77236-V and EF-1 β shRNA (m) Lentiviral Particles: sc-77238-V.

Molecular Weight of EF-1 β : 25 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, K-562 whole cell lysate: sc-2203 or Ramos cell lysate: sc-2216.

DATA



EF-1 β (C-16): sc-82870. Western blot analysis of

EF-1 β expression in non-transfected 293T: sc-117752 (**A**), mouse EF-1 β transfected 293T: sc-119934 (**B**), HeLa (**C**), K-562 (**D**), Ramos (**E**) and U-87 MG (**F**) whole

HeLa (C), K-562 (D), Ramos (E) and U-87 MG (F) who cell lysates.

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.

MONOS Satisfation Guaranteed

Try **EF-1** β (3A5): sc-517178, our highly recommended monoclonal alternative to EF-1 β (C-16).