

EF-1 α 1 (CBP-KK1): sc-21758

BACKGROUND

The elongation factor-1 complex is composed of two subunits, EF-1 α 1 (elongation factor 1- α 1) and EF-1 α 2 (elongation factor 1- α 2), and is responsible for the delivery of aminoacyl tRNAs to the ribosome. EF-1 α 1 is expressed predominately in brain, placenta, lung, liver, kidney and pancreas, while EF-1 α 2 is highly expressed in heart, brain and skeletal muscle. Both EF-1 α 1 and α 2 localize to the nucleus and belong to the GTP-binding elongation factor family. The gene encoding EF-1 α 2, which maps to human chromosome 20q13.3, may play a role in the development of ovarian cancer, while the EF-1 α 1 gene, mapping to chromosome 6q14.1, is commonly present as an autoantigen in patients with Felty syndrome. Felty syndrome is a disorder characterized by rheumatoid arthritis, a swollen spleen, decreased white blood cell count, and increased susceptibility to infection.

CHROMOSOMAL LOCATION

Genetic locus: EEF1A1 (human) mapping to 6q13; Eef1a1 (mouse) mapping to 9 E1.

SOURCE

EF-1 α 1 (CBP-KK1) is a mouse monoclonal antibody raised against calmodium binding proteins of *Trypanosoma brucei* origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

EF-1 α 1 (CBP-KK1) is available conjugated to agarose (sc-21758 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-21758 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-21758 PE), fluorescein (sc-21758 FITC), Alexa Fluor® 488 (sc-21758 AF488), Alexa Fluor® 546 (sc-21758 AF546), Alexa Fluor® 594 (sc-21758 AF594) or Alexa Fluor® 647 (sc-21758 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-21758 AF680) or Alexa Fluor® 790 (sc-21758 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

EF-1 α 1 (CBP-KK1) is recommended for detection of EF-1 α 1 of mammalian origin by Western Blotting (starting dilution 1:50, dilution range 1:50-1:100), 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for EF-1 α 1 siRNA (h): sc-77231, EF-1 α 1 siRNA (m): sc-77232, EF-1 α 1 shRNA Plasmid (h): sc-77231-SH, EF-1 α 1 shRNA Plasmid (m): sc-77232-SH, EF-1 α 1 shRNA (h) Lentiviral Particles: sc-77231-V and EF-1 α 1 shRNA (m) Lentiviral Particles: sc-77232-V.

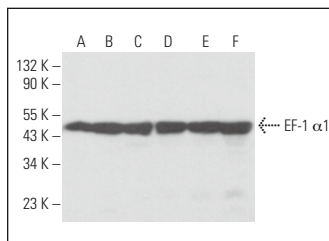
Molecular Weight of EF-1 α 1: 50 kDa.

Positive Controls: L6 whole cell lysate: sc-364196, Sol8 cell lysate: sc-2249 or BYDP whole cell lysate: sc-364368.

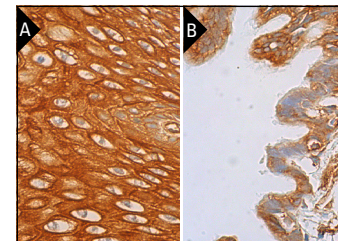
STORAGE

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

DATA



EF-1 α 1 (CBP-KK1): sc-21758. Western blot analysis of EF-1 α 1 expression in Jurkat (A), SUP-T1 (B), c4 (C), BYDP (D), Sol8 (E) and L6 (F) whole cell lysates.



EF-1 α 1 (CBP-KK1) HRP: sc-21758. Direct immunoperoxidase staining of formalin fixed, paraffin-embedded human uterine cervix tissue showing cytoplasmic staining of squamous epithelial cells (A). Direct immunoperoxidase staining of formalin fixed, paraffin-embedded human bronchus tissue showing cytoplasmic staining of respiratory epithelial cells (B). Blocked with 0.25X UltraCruz® Blocking Reagent: sc-516214.

SELECT PRODUCT CITATIONS

- Yu, X., et al. 2006. The regulation of exosome secretion: a novel function of the p53 protein. *Cancer Res.* 66: 4795-4801.
- Rehman, I., et al. 2012. iTRAQ identification of candidate serum biomarkers associated with metastatic progression of human prostate cancer. *PLoS ONE* 7: e30885.
- DeBoer, J., et al. 2014. Alterations in the nuclear proteome of HIV-1 infected T-cells. *Virology* 468-470: 409-420.
- DeBoer, J., et al. 2018. Proteomic profiling of HIV-infected T-cells by SWATH mass spectrometry. *Virology* 516: 246-257.
- Kumar, V., et al. 2019. Protein features for assembly of the RNA editing helicase 2 subcomplex (REH2C) in *Trypanosoma* holo-editosomes. *PLoS ONE* 14: e0211525.
- Zanka, K., et al. 2020. Epigallocatechin gallate induces upregulation of LDL receptor via the 67 kDa laminin receptor-independent pathway in Hep G2 cells. *Mol. Nutr. Food Res.* 64: e1901036.
- Gong, T., et al. 2021. Expression and clinical value of eukaryotic translation elongation factor 1A1 (EEF1A1) in diffuse large B cell lymphoma. *Int. J. Gen. Med.* 14: 7247-7258.
- You, A., et al. 2022. TTC22 promotes m⁶A-mediated WTAP expression and colon cancer metastasis in an RPL4 binding-dependent pattern. *Oncogene* 41: 3925-3938.
- Wu, W., et al. 2023. TOPK promotes the growth of esophageal cancer *in vitro* and *in vivo* by enhancing YB1/EEF1A1 signal pathway. *Cell Death Dis.* 14: 364.

RESEARCH USE

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