SANTA CRUZ BIOTECHNOLOGY, INC.

EF-1 γ (C-7): sc-393378

BACKGROUND

EF-1 (elongation factor-1) is a multi-protein complex that is responsible for the delivery of aminoacyl-tRNAs to the ribosome. EF-1 γ (elongation factor 1-γ), also known as EEF1G or GIG35, is a 437 amino acid subunit of the EF-1 complex. Expressed in stomach, pancreas, brain, lung, kidney, intestine, liver and spleen, EF-1 γ contains an N-terminal glutathione transferase domain which is thought to be involved in anchoring the complex to various cellular components. Additionally, EF-1 γ may play a key role in the assembly of multiprotein complexes containing aminoacyl-tRNA synthetases. Increased expression of EF-1 γ is associated with pancreatic cancer, suggesting a possible role for EF-1 γ in the oncogenic transformation process.

CHROMOSOMAL LOCATION

Genetic locus: EEF1G (human) mapping to 11q12.3; Eef1g (mouse) mapping to 19 A.

SOURCE

EF-1 γ (C-7) is a mouse monoclonal antibody raised against amino acids 204-384 mapping near the C-terminus of EF-1 γ of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

EF-1 γ (C-7) is available conjugated to agarose (sc-393378 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393378 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393378 PE), fluorescein (sc-393378 FITC), Alexa Fluor® 488 (sc-393378 AF488), Alexa Fluor® 546 (sc-393378 AF546), Alexa Fluor® 594 (sc-393378 AF594) or Alexa Fluor® 647 (sc-393378 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393378 AF680) or Alexa Fluor® 790 (sc-393378 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

EF-1 γ (C-7) is recommended for detection of EF-1 γ of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for EF-1 γ siRNA (h): sc-96325, EF-1 γ siRNA (m): sc-155889, EF-1 γ shRNA Plasmid (h): sc-96325-SH, EF-1 γ shRNA Plasmid (m): sc-155889-SH, EF-1 γ shRNA (h) Lentiviral Particles: sc-96325-V and EF-1 γ shRNA (m) Lentiviral Particles: sc-155889-V.

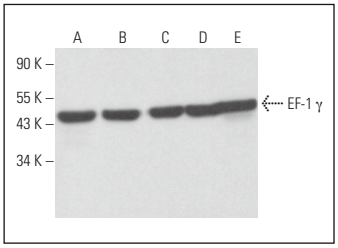
Molecular Weight of EF-1 γ: 50 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, PC-12 cell lysate: sc-2250 or HL-60 whole cell lysate: sc-2209.

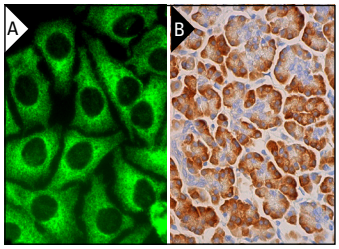
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



EF-1 γ (C-7): sc-393378. Western blot analysis of EF-1 γ expression in HL-60 (**A**), HeLa (**B**), RAW 264.7 (**C**), C6 (**D**) and PC-12 (**E**) whole cell lysates.



EF-1 γ (C-7): sc-393378. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of exocrine glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Stecher, C., et al. 2021. Protein phosphatase 1 regulates human cytomegalovirus protein translation by restraining AMPK signaling. Front. Microbiol. 12: 698603.
2. Lee, H., et al. 2023. Translocation of cytosolic human Cdc73 to stress granules plays a role in arsenic stress-induced stabilization of p53 mRNA. J. Cell Sci. 136: jcs260593.

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 for detailed protocols and support products.