

EF-1 γ (C-7): sc-393378



The Power to Question

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.

REFERENCES

- Sanders, J., et al. 1992. Elongation factor-1 messenger-RNA levels in cultured cells are high compared to tissue and are not drastically affected further by oncogenic transformation. *Nucleic Acids Res.* 20: 5907-5910.
- Lew, Y., et al. 1992. Expression of elongation factor-1 γ -related sequence in human pancreatic cancer. *Pancreas* 7: 144-152.
- Koonin, E.V., et al. 1994. Eukaryotic translation elongation factor 1 γ contains a glutathione transferase domain—study of a diverse, ancient protein superfamily using motif search and structural modeling. *Protein Sci.* 3: 2045-2054.

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 μ g IgG₁ 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 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393378 HRP), 200 μ g/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 μ g/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 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE

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

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 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), 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.

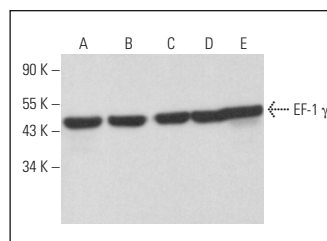
Molecular Weight of EF-1 γ : 50 kDa.

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

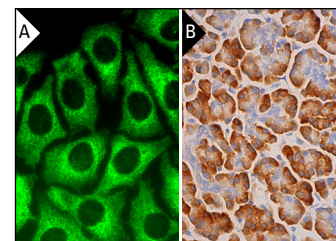
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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-IgG κ 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

- Stecher, C., et al. 2021. Protein phosphatase 1 regulates human cytomegalovirus protein translation by restraining AMPK signaling. *Front. Microbiol.* 12: 698603.

RESEARCH USE

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