

EF-1 γ (P-14): sc-167720

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.
- Wang, C.C., et al. 2004. Molecular hierarchy in neurons differentiated from mouse ES cells containing a single human chromosome 21. *Biochem. Biophys. Res. Commun.* 314: 335-350.
- Yoon, S.Y., et al. 2006. Gene expression profiling of human HBV- and/or HCV-associated hepatocellular carcinoma cells using expressed sequence tags. *Int. J. Oncol.* 29: 315-327.
- Corcoran, D., et al. 2007. Temporal expression of transcripts related to embryo quality in bovine embryos cultured from the two-cell to blastocyst stage *in vitro* or *in vivo*. *Mol. Reprod. Dev.* 74: 972-977.

CHROMOSOMAL LOCATION

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

SOURCE

EF-1 γ (P-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of EF-1 γ of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-167720 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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 (P-14) is recommended for detection of EF-1 γ of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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-1 family members.

EF-1 γ (P-14) is also recommended for detection of EF-1 γ in additional species, including equine, canine, bovine and porcine.

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: JAR cell lysate: sc-2276, HL-60 whole cell lysate: sc-2209 or K-562 whole cell lysate: sc-2203.

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) 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.

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.



Try **EF-1 γ (C-7): sc-393378** or **EF-1 γ (X5-P): sc-101035**, our highly recommended monoclonal alternatives to EF-1 γ (P-14).