

EF-1 γ (H-181): sc-292906

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., Maassen, J.A. and Möller, W. 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., Jones, D.V., Mars, W.M., Evans, D., Byrd, D. and Frazier, M.L. 1992. Expression of elongation factor-1 γ -related sequence in human pancreatic cancer. *Pancreas* 7: 144-152.
- Koonin, E.V., Mushegian, A.R., Tatusov, R.L., Altschul, S.F., Bryant, S.H., Bork, P. and Valencia, A. 1994. Eukaryotic translation elongation factor 1 gamma 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., Kadota, M., Nishigaki, R., Kazuki, Y., Shirayoshi, Y., Rogers, M.S., Gojobori, T., Ikeo, K. and Oshimura, M. 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., Kim, J.M., Oh, J.H., Jeon, Y.J., Lee, D.S., Kim, J.H., Choi, J.Y., Ahn, B.M., Kim, S., Yoo, H.S., Kim, Y.S. and Kim, N.S. 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., Rizos, D., Fair, T., Evans, A.C. and Lonergan, P. 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 (H-181) is a rabbit polyclonal 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 IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

EF-1 γ (H-181) 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), 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other EF-1 family members.

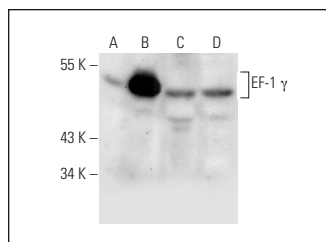
EF-1 γ (H-181) is also recommended for detection of EF-1 γ in additional species, including equine, canine, bovine and porcine.

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.

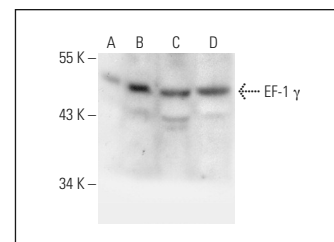
Molecular Weight of EF-1 γ : 50 kDa.

Positive Controls: EF-1 γ (h2): 293T Lysate: sc-114807, HL-60 whole cell lysate: sc-2209 or IMR-32 cell lysate: sc-2409.

DATA



EF-1 γ (H-181): sc-292906. Western blot analysis of EF-1 γ expression in non-transfected 293T: sc-117752 (A), human EF-1 γ transfected 293T: sc-114807 (B), HL-60 (C) and IMR-32 (D) whole cell lysates.



EF-1 γ (H-181): sc-292906. Western blot analysis of EF-1 γ expression in non-transfected 293T: sc-117752 (A), mouse EF-1 γ transfected 293T: sc-119923 (B), HL-60 (C) and IMR-32 (D) whole 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.



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 (H-181).