

EF-1 γ (m2): 293T Lysate: sc-119924

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 multi-protein 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

1. 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.
2. 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.
3. 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 γ contains a Glutathione transferase domain—study of a diverse, ancient protein superfamily using motif search and structural modeling. *Protein Sci.* 3: 2045-2054.
4. 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.
5. 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.
6. 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 (mouse) mapping to 19 A.

PRODUCT

EF-1 γ (m2): 293T Lysate represents a lysate of mouse EF-1 γ transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

EF-1 γ (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive EF-1 γ antibodies. Recommended use: 10-20 μ l per lane.

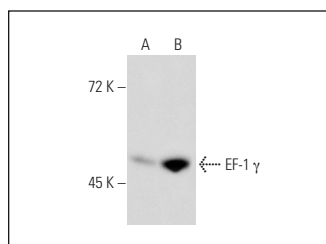
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

EF-1 γ (X5-P): sc-101035 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse EF-1 γ expression in EF-1 γ transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



EF-1 γ (X5-P): sc-101035. Western blot analysis of EF-1 γ expression in non-transfected: sc-117752 (A) and mouse EF-1 γ transfected: sc-119924 (B) 293T whole cell lysates.

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.