# SANTA CRUZ BIOTECHNOLOGY, INC.

# EF-1 γ (U-23): sc-133538



## 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  $\gamma$  (elongation factor 1- $\gamma$ ), 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  $\gamma$  contains an N-terminal glutathione transferase domain which is thought to be involved in anchoring the complex to various cellular components. Additionally, EF-1  $\gamma$  may play a key role in the assembly of multiprotein complexes containing aminoacyl-tRNA synthetases. Increased expression of EF-1  $\gamma$  is associated with pancreatic cancer, suggesting a possible role for EF-1  $\gamma$  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.
- 3. Koonin, E.V., et al. 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., 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  $\gamma$  (U-23) is a Protein A purified rabbit polyclonal antibody raised against synthetic EF-1  $\gamma$  peptide of human origin.

# PRODUCT

Each vial contains 100  $\mu g$  lgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

## STORAGE

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

EF-1  $\gamma$  (U-23) is recommended for detection of EF-1  $\gamma$  of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

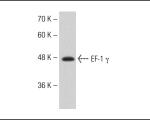
Molecular Weight of EF-1 y: 50 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HL-60 whole cell lysate: sc-2209 or JAR cell lysate: sc-2276.

## **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).





EF-1  $\gamma$  (U-23): sc-133538. Western blot analysis of EF-1  $\gamma$  expression in Hep G2 whole cell lysate.

#### **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.

MONOS Satisfation Guaranteed Try EF-1  $\gamma$  (C-7): sc-393378 or EF-1  $\gamma$  (X5-P): sc-101035, our highly recommended monoclonal alternatives to EF-1  $\gamma$  (U-23).