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SANTA CRUZ BIOTECHNOLOGY, INC.

eRF1 (m): 293T Lysate: sc-120092

BACKGROUND

Translation is carried out by the ribosome and several associated protein factors through three consecutive steps: initiation, elongation and termination. Termination of protein synthesis takes place when the ribosomal A site is occupied simultaneously by one of three stop codons and by a class 1 translation termination factor. In eukaryotes, this termination factor is the eukaryotic release factor 1 (eRF1), a protein that promotes hydrolysis of the last peptidyl-tRNA on the ribosome. eRF1 activity is stimulated by the association with the GTP-binding protein eRF3. eRF1 forms a quaternary complex with eRF3, GTP and the ribosome. This complex performs a dual role, where, in the "GTP state," it controls the positioning of eRF1 toward the stop codon and peptidyl-tRNA, and, in the "GDP state," it promotes the release of the eRFs from the ribosome. eRF1 contains a highly conserved Asn-Ile-Lys-Ser (NIKS) tetrapeptide, which is essential for the interaction of eRF1 with the ribosome. The gene encoding human eRF1 maps to chromosome 5q31.2.

REFERENCES

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7. Dubourg, C., Toutain, B., Helias, C., Henry, C., Lessard, M., Le Gall, J.Y., Le Treut, A. and Guenet, L. 2002. Evaluation of ETF1/eRF1, mapping to 5q31, as a candidate myeloid tumor suppressor gene. Cancer Genet. Cytogenet. 134: 33-37.

CHROMOSOMAL LOCATION

Genetic locus: Etf1 (mouse) mapping to 18 B1.

PRODUCT

eRF1 (m): 293T Lysate represents a lysate of mouse eRF1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

eRF1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive eRF1 antibodies. Recommended use: 10-20 µl per lane.

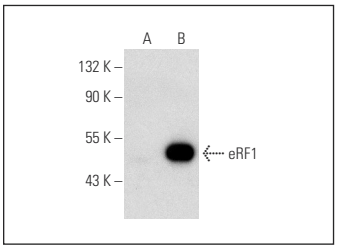
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

eRF1 (E-11): sc-365653 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse eRF1 expression in eRF1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

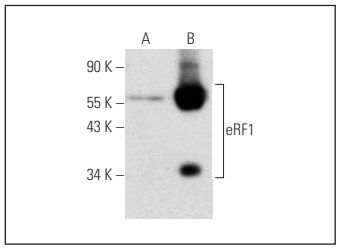
RECOMMENDED SUPPORT REAGENTS

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



eRF1 (E-11): sc-365653. Western blot analysis of eRF1 expression in non-transfected: sc-117752 (**A**) and mouse eRF1 transfected: sc-120092 (**B**) 293T whole cell lysates.



eRF1 (B-11): sc-365686. Western blot analysis of eRF1 expression in non-transfected: sc-117752 (**A**) and mouse eRF1 transfected: sc-120092 (**B**) 293T whole cell lysates.

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.

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.