

eRF1 (C-20): sc-22098

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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CHROMOSOMAL LOCATION

Genetic locus: ETF1 (human) mapping to 5q31.2; Etf1 (mouse) mapping to 18 B1.

SOURCE

eRF1 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of eRF1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-22098 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

eRF1 (C-20) is recommended for detection of eukaryotic release factor 1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

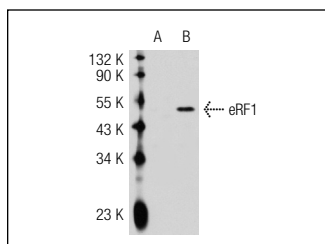
eRF1 (C-20) is also recommended for detection of eukaryotic release factor 1 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for eRF1 siRNA (h): sc-37871, eRF1 siRNA (m): sc-37872, eRF1 shRNA Plasmid (h): sc-37871-SH, eRF1 shRNA Plasmid (m): sc-37872-SH, eRF1 shRNA (h) Lentiviral Particles: sc-37871-V and eRF1 shRNA (m) Lentiviral Particles: sc-37872-V.

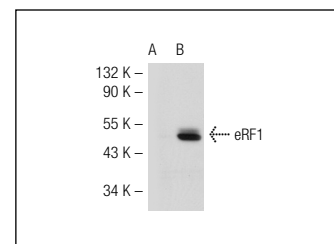
Molecular Weight of eRF1: 50 kDa.

Positive Controls: eRF1 (m): 293T Lysate: sc-120092 or eRF1 (h): 293T Lysate: sc-111498.

DATA



eRF1 (C-20): sc-22098. Western blot analysis of eRF1 expression in non-transfected: sc-117752 (A) and human eRF1 transfected: sc-111498 (B) 293T whole cell lysates.



eRF1 (C-20): sc-22098. 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 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.

MONOS
Satisfaction
Guaranteed

Try **eRF1 (B-11): sc-365686** or **eRF1 (E-11): sc-365653**, our highly recommended monoclonal alternatives to eRF1 (C-20).