

# MTRF1 (K-17): sc-84214



The Power to Question

## BACKGROUND

MTRF1 (mitochondrial translational release factor 1), also known as RF1 or MRF1, is a 445 amino acid protein that localizes to the mitochondrion and belongs to the prokaryotic/mitochondrial release factor family of chain-terminating proteins. Functioning in a similar manner to related yeast and bacterial proteins, MTRF1 acts as a peptide chain release factor that directs translational termination, specifically in response to the stop codons AGG and AGA. The gene encoding MTRF1 maps to human chromosome 13, which houses over 400 genes, such as BRCA2 and RB1, and comprises nearly 4% of the human genome. Trisomy 13, also known as Patau syndrome, is deadly and the few who survive past one year suffer from permanent neurologic defects, difficulty eating and vulnerability to serious respiratory infections.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: MTRF1 (human) mapping to 13q14.11; Mtrf1 (mouse) mapping to 14 D3.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## SOURCE

MTRF1 (K-17) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of MTRF1 of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-84214 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MTRF1 (K-17) is recommended for detection of MTRF1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

MTRF1 (K-17) is also recommended for detection of MTRF1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MTRF1 siRNA (h): sc-106261, MTRF1 siRNA (m): sc-149692, MTRF1 shRNA Plasmid (h): sc-106261-SH, MTRF1 shRNA Plasmid (m): sc-149692-SH, MTRF1 shRNA (h) Lentiviral Particles: sc-106261-V and MTRF1 shRNA (m) Lentiviral Particles: sc-149692-V.

Molecular Weight of MTRF1: 52 kDa.

## 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) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.