

# MRI1 (E-15): sc-240704

## BACKGROUND

MRI1 (methylthioribose-1-phosphate isomerase), also known as MTR-1-P isomerase, is a 369 amino acid enzyme belonging to the eIF2B  $\alpha/\beta/\delta$  subunit family. MRI1 is involved in the amino-acid biosynthesis pathway, specifically the L-methionine biosynthesis via salvage pathway. MRI1 catalyzes the interconversion of methylthioribose-1-phosphate (MTR-1-P) into methylthioribulose-1-phosphate (MTRu-1-P). MRI1 is expressed as two isoforms produced by alternative splicing. The gene that encodes MRI1 maps to human chromosome 19, which consists of around 63 million bases with over 1,400 genes. Chromosome 19 is recognized for having the greatest gene density of the human chromosomes. It is the genetic home for a number of immunoglobulin superfamily members including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG family, and Fc $\alpha$  receptors. Key genes for eye color and hair color also map to chromosome 19.

## REFERENCES

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- Grimwood, J., et al. 2004. The DNA sequence and biology of human chromosome 19. *Nature* 428: 529-535.
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## CHROMOSOMAL LOCATION

Genetic locus: MRI1 (human) mapping to 19p13.2; Mri1 (mouse) mapping to 8 C3.

## SOURCE

MRI1 (E-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MRI1 of human origin.

## RESEARCH USE

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

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-240704 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MRI1 (E-15) is recommended for detection of MRI1 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).

MRI1 (E-15) is also recommended for detection of MRI1 in additional species, including bovine and porcine.

Suitable for use as control antibody for MRI1 siRNA (h): sc-97714, MRI1 siRNA (m): sc-108742, MRI1 shRNA Plasmid (h): sc-97714-SH, MRI1 shRNA Plasmid (m): sc-108742-SH, MRI1 shRNA (h) Lentiviral Particles: sc-97714-V and MRI1 shRNA (m) Lentiviral Particles: sc-108742-V.

Molecular Weight of MRI1: 39 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (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.