

Oma1 (N-14): sc-168843

BACKGROUND

Oma1 (OMA1 homolog, zinc metallopeptidase (*S. cerevisiae*)), also known as MPRP-1 or ZMPOMA1, is a 521 amino acid mitochondrial protease that belongs to the peptidase M48 family. Oma1 is an integral part of the inner membrane, and it functions to mediate the proteolytic breakdown of a misfolded derivative of the polytopic inner membrane protein OXA1. Oma1 is a novel component of the quality control system in the inner membrane of mitochondria. The gene encoding Oma1 maps to human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome. Chromosome 1 houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome. Aberrations in chromosome 1 are found in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: OMA1 (human) mapping to 1p32.1.

SOURCE

Oma1 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Oma1 of human origin.

RESEARCH USE

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

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-168843 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Oma1 (N-14) is recommended for detection of Oma1 of 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).

Suitable for use as control antibody for Oma1 siRNA (h): sc-78998, Oma1 shRNA Plasmid (h): sc-78998-SH and Oma1 shRNA (h) Lentiviral Particles: sc-78998-V.

Molecular Weight of Oma1 precursor: 60 kDa.

Molecular Weight of cleaved Oma1: 40 kDa.

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 for detailed protocols and support products.



Try **Oma1 (H-11): sc-515788**, our highly recommended monoclonal alternative to Oma1 (N-14).