**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 protease 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 1p32.2, 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.

**CHROMOSOMAL LOCATION**

Genetic locus: OMA1 (human) mapping to 1p32.2; Oma1 (mouse) mapping to 4 C6.

**SOURCE**

Oma1 (H-11) is a mouse monoclonal antibody raised against amino acids 230-399 mapping within an internal region of Oma1 of human origin.

**PRODUCT**

Each vial contains 200 μg IgG₂b in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Oma1 (H-11) is available conjugated to agarose (sc-515788 AC), 500 μg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515788 HRP), 200 μg/ml, for WB, (H)IP and ELISA; to either phycocerythrin (sc-515788 PE), fluorescein (sc-515788 FITC), Alexa Fluor® 488 (sc-515788 AF488), Alexa Fluor® 546 (sc-515788 AF546), Alexa Fluor® 594 (sc-515788 AF594) or Alexa Fluor® 647 (sc-515788 AF647), 200 μg/mL, for WB (RGB), IF, (H)IP and FCM; and to either Alexa Fluor® 680 (sc-515788 AF680) or Alexa Fluor® 790 (sc-515788 AF790), 200 μg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

Oma1 (H-11) is recommended for detection of Oma1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (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 siRNA (m): sc-151297, Oma1 shRNA Plasmid (h): sc-78998-SH, Oma1 shRNA Plasmid (m): sc-151297-SH, Oma1 shRNA (h) Lentiviral Particles: sc-78998-V and Oma1 shRNA (m) Lentiviral Particles: sc-151297-V.

Molecular Weight of Oma1 precursor: 60 kDa.

Molecular Weight of cleaved Oma1: 40 kDa.

**STORAGE**

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

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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

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