MAL (E-1): sc-390687

**BACKGROUND**

MAL (myelin and lymphocyte protein), also known as T lymphocyte maturation-associated protein, is a nonglycosylated hydrophobic integral membrane protein belonging to the MAL family of proteolipids. MAL is highly enriched in nervous system myelin and in rafts and apical membranes of epithelial cells. It is involved in forming, stabilizing and maintaining glycosphingolipid-enriched membrane microdomains. MAL maintains the myelin sheath and, by controlling the sorting and trafficking of oligodendrocytes, it is involved in central nervous system paranode maintenance. MAL is a component of lipid rafts in myelinating cells. Association with glycosphingolipids may result in protein-lipid microdomain formation in myelin. MAL has been localized to the endoplasmic reticulum of T cells and in compact myelin of cells in the nervous system. MAL is primarily expressed by oligodendrocytes and Schwann cells in the intermediate and late stages of T cell differentiation.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: MAL (human) mapping to 2q11.1.

**SOURCE**

MAL (E-1) is a mouse monoclonal antibody raised against amino acids 61-130 mapping within an internal region of MAL of human origin.

**PRODUCT**

Each vial contains 200 µg IgG, kappa light chain in 1.0 ml of PBS with 0.1% sodium azide and 0.1% gelatin.

MAL (E-1) is available conjugated to agarose (sc-390687 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390687 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390687 FITC), Alexa Fluor® 488 (sc-390687 AF488), Alexa Fluor® 546 (sc-390687 AF546), Alexa Fluor® 594 (sc-390687 AF594) or Alexa Fluor® 647 (sc-390687 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390687 AF680) or Alexa Fluor® 790 (sc-390687 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**RESEARCH USE**

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

**APPLICATIONS**

MAL (E-1) is recommended for detection of MAL of 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 MAL siRNA (h): sc-44785, MAL shRNA Plasmid (h): sc-44785-SH and MAL shRNA (h) Lentiviral Particles: sc-44785-V.

Molecular Weight of MAL: 17 kDa.

Positive Controls: SUP-T1 whole cell lysate: sc-364796 or MOLT-4 cell lysate: sc-2233.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

**DATA**

MAL (E-1) sc-390687. Western blot analysis of MAL expression in SUP-T1 (A) and MOLT-4 (B) whole cell lysates.

MAL (E-1) sc-390687. Immunoperoxidase staining of formalin fixed, paraffin-embedded human fetal thymus tissue showing cytoplasmic and membrane staining of medullary cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human tonsil tissue showing cytoplasmic and membrane staining of squamous epithelial cells (B).

**STORAGE**

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

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**SAFETY**

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

Non-hazardous. No MSDS required.

Human IgG, kappa light chain contains sodium azide and 0.1% gelatin. For research use only, not for use in diagnostic procedures. Not for injection.