

MR1 (E-13): sc-104380

BACKGROUND

MR1 (major histocompatibility complex, class I-related), also known as HLALS, is a 341 amino acid single-pass membrane protein that localizes to the endoplasmic reticulum, as well as to the extracellular side of the cell membrane, and contains one Ig-like C1-type domain. Expressed ubiquitously, MR1 exists as a heterodimer with β -2-microglobulin and plays an important role in antigen presentation, specifically in the development and expansion of mucosal-associated invariant T cells (MAITs). MAITs are located in the gut and are involved in monitoring flora levels, as well as in conveying distress signals to other areas of the body, indicating a role for MR1 in proper digestion and immune system function. MR1 exists as four alternatively spliced isoforms and is encoded by a gene which maps to human chromosome 1.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: MR1 (human) mapping to 1q25.3; Mr1 (mouse) mapping to 1 G3.

RESEARCH USE

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

SOURCE

MR1 (E-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MR1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-104380 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MR1 (E-13) is recommended for detection of MR1 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).

MR1 (E-13) is also recommended for detection of MR1 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for MR1 siRNA (h): sc-88089, MR1 siRNA (m): sc-106236, MR1 shRNA Plasmid (h): sc-88089-SH, MR1 shRNA Plasmid (m): sc-106236-SH, MR1 shRNA (h) Lentiviral Particles: sc-88089-V and MR1 shRNA (m) Lentiviral Particles: sc-106236-V.

Molecular Weight of MR1: 39 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 or our catalog for detailed protocols and support products.



Try **MR1 (B-3): sc-377312**, our highly recommended monoclonal alternative to MR1 (E-13).