

# MARCO (E-17): sc-68624

## BACKGROUND

Macrophages provide their host with a nonspecific immune defense against pathogens. One cellular surface receptor utilized by macrophages is the macrophage receptor with collagenous structure (MARCO). MARCO is a member of the class A scavenger receptor molecules. This single-pass type II membrane protein was first identified in subpopulations of murine macrophages in the spleen and medullary cord of lymph nodes. MARCO is additionally found in increased levels in other tissues during bacterial infection. MARCO is a major receptor in alveolar macrophages, binding both Gram-positive and Gram-negative bacteria. Additionally, MARCO has been shown to be the major scavenger receptor involved in silica uptake and cytotoxicity in murine macrophages. In mice, mutations in the gene coding for MARCO may lead to increased pulmonary inflammation and cytokine release as well as an impaired ability to clear bacteria from the lungs.

## REFERENCES

- Grolleau, A., et al. 2003. Inducible expression of macrophage receptor Marco by dendritic cells following phagocytic uptake of dead cells uncovered by oligonucleotide arrays. *J. Immunol.* 171: 2879-2888.
- Arredouani, M., et al. 2004. The scavenger receptor MARCO is required for lung defense against pneumococcal pneumonia and inhaled particles. *J. Exp. Med.* 200: 267-272.
- Arredouani, M.S., et al. 2005. MARCO is the major binding receptor for unopsonized particles and bacteria on human alveolar macrophages. *J. Immunol.* 175: 6058-6064.
- Jozefowski, S., et al. 2005. Disparate regulation and function of the class A scavenger receptors SR-AI/II and MARCO. *J. Immunol.* 175: 8032-8041.
- Chen, Y., et al. 2005. Defective microarchitecture of the spleen marginal zone and impaired response to a thymus-independent type 2 antigen in mice lacking scavenger receptors MARCO and SR-A. *J. Immunol.* 175: 8173-8180.
- Jiang, Y., et al. 2006. Identification and characterization of murine SCARA5, a novel class A scavenger receptor that is expressed by populations of epithelial cells. *J. Biol. Chem.* 281: 11834-11845.
- Kvell, K., et al. 2006. Species-specific restriction of cell surface expression of mouse MARCO glycoprotein in murine cell lines. *Biochem. Biophys. Res. Commun.* 341: 1193-1202.
- Jozefowski, S., et al. 2006. Role of scavenger receptor MARCO in macrophage responses to CpG oligodeoxynucleotides. *J. Leukoc. Biol.* 80: 870-879.
- Hamilton, R.F., Jr., et al. 2006. MARCO mediates silica uptake and toxicity in alveolar macrophages from C57BL/6 mice. *J. Biol. Chem.* 281: 34218-34226.

## CHROMOSOMAL LOCATION

Genetic locus: MARCO (human) mapping to 2q14.2.

## SOURCE

MARCO (E-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MARCO of human origin.

## 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-68624 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MARCO (E-17) is recommended for detection of MARCO 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 MARCO siRNA (h): sc-75747, MARCO shRNA Plasmid (h): sc-75747-SH and MARCO shRNA (h) Lentiviral Particles: sc-75747-V.

Molecular Weight of MARCO: 53 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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **MARCO (F-3): sc-398053**, our highly recommended monoclonal alternative to MARCO (E-17).