

# MARCO (h): 293T Lysate: sc-159726

## 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

1. 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.
2. 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.
3. 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.
4. Jozefowski, S., et al. 2005. Disparate regulation and function of the class A scavenger receptors SR-A/II and MARCO. *J. Immunol.* 175: 8032-8041.
5. 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.
6. 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.
7. 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.
8. Jozefowski, S., et al. 2006. Role of scavenger receptor MARCO in macrophage responses to CpG oligodeoxynucleotides. *J. Leukoc. Biol.* 80: 870-879.
9. 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.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## CHROMOSOMAL LOCATION

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

## PRODUCT

MARCO (h): 293T Lysate represents a lysate of human MARCO transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## APPLICATIONS

MARCO (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive MARCO antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

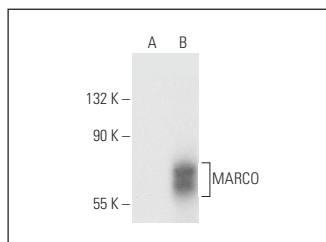
MARCO (F-3): sc-398053 is recommended as a positive control antibody for Western Blot analysis of enhanced human MARCO expression in MARCO transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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.

## DATA



MARCO (F-3): sc-398053. Western blot analysis of MARCO expression in non-transfected: sc-117752 (A) and human MARCO transfected: sc-159726 (B) 293T whole cell lysates.

## 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) for detailed protocols and support products.