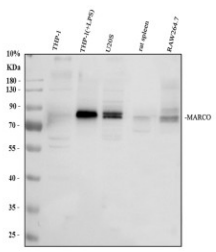
MARCO Antibody / Macrophage Receptor With Collagenous Structure Antibody (FY13302)

Catalog No.	Formulation	Size
FY13302	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q9UEW3
Applications	Western Blot: 0.5-1ug/ml ELISA: 0.1-0.5ug/ml
Limitations	This MARCO Antibody / Macrophage Receptor With Collagenous Structure Antibody is available for research use only.



MARCO Antibody Human, Mouse and Rat WB. Western blot analysis of MARCO in human THP-1 and U2OS cells, rat spleen tissue and mouse RAW264.7 cells using MARCO Antibody. Samples (30 ug/lane) were separated by 10% SDS-PAGE under reducing conditions and transferred to nitrocellulose. Lane 1: THP-1; Lane 2: LPS-treated THP-1; Lane 3: U2OS; Lane 4: rat spleen; Lane 5: RAW264.7. The membrane was incubated with the antibody at 0.5 ug/ml overnight at 4Â°C, followed by HRP-conjugated secondary antibody and ECL detection. MARCO was detected at approximately 80 kDa versus a predicted molecular weight of 53 kDa; slower migration is consistent with the extensive post-translational modification, including glycosylation, reported for this cell-surface scavenger receptor. The stronger MARCO signal following LPS treatment of THP-1 cells is consistent with inducible expression during macrophage inflammatory activation. This MARCO Antibody detects Macrophage Receptor With Collagenous Structure across human, mouse and rat samples.

Description

MARCO Antibody / Macrophage Receptor With Collagenous Structure Antibody recognizes MARCO, a pattern recognition and scavenger receptor expressed predominantly by macrophages and other cells of the innate immune system. MARCO is a member of the class A scavenger receptor family and is also known as scavenger receptor class A member 2 (SCARA2). It is a type II transmembrane glycoprotein characterized by an extracellular collagen-like domain and a C-terminal scavenger receptor cysteine-rich domain. Through recognition and binding of diverse ligands, MARCO contributes to innate immune surveillance, clearance of foreign material and regulation of macrophage responses.

MARCO is expressed by subsets of tissue-resident and activated macrophages and can recognize a broad range of microbial and environmental components. Ligands associated with MARCO include bacterial components, modified lipids and particulate material. Its ability to bind structurally diverse targets enables macrophages to capture and internalize potentially harmful substances as part of the body's first line of immune defense. MARCO Antibody reagents are therefore relevant to studies of macrophage biology, pattern recognition, phagocytosis and host responses to microbial or environmental challenges.

Expression of the Macrophage Receptor With Collagenous Structure can change substantially in response to inflammatory signals and the local tissue environment. MARCO participates in interactions between innate immune cells and inflammatory pathways and has been investigated in models of infection, pulmonary inflammation, atherosclerosis and other conditions involving macrophage activation. Because macrophages can adopt diverse functional states depending on their surrounding signals, MARCO expression is also studied as a marker for defining particular macrophage populations and investigating their roles within tissues.

MARCO has attracted considerable interest in cancer research because macrophages are major components of the tumor microenvironment. MARCO expression has been reported in subsets of tumor-associated macrophages, where these cells may influence immune regulation, inflammation and interactions between malignant cells and the surrounding stroma. Research into MARCO-positive macrophage populations is helping define the functional diversity of tumor-associated myeloid cells and their potential contributions to tumor progression and antitumor immunity. MARCO is consequently studied in areas including tumor immunology, macrophage polarization and the development of strategies designed to modify the immune microenvironment.

As both a scavenger receptor and a macrophage-associated immune molecule, MARCO provides a useful target for connecting receptor biology with innate immunity, inflammation and macrophage function. Its expression across specialized macrophage populations also makes it relevant to research examining immune cell heterogeneity in normal and diseased tissues. NSJ Bioreagents supplies antibodies to MARCO and other proteins involved in macrophage and innate immune signaling. A MARCO Antibody can support studies of macrophage biology, scavenger receptor activity, innate immune responses, inflammation, tumor-associated macrophages and tumor immunity.

For related targets involved in macrophage biology, scavenger receptor activity and immune function, explore our Macrophage Antibodies page.

Application Notes

Optimal dilution of the MARCO Antibody / Macrophage Receptor With Collagenous Structure Antibody should be determined by the researcher.

Immunogen

E.coli-derived human MARCO recombinant protein (Position: M1-R489) was used as the immunogen for the MARCO antibody.

Storage

After reconstitution, the MARCO antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

MARCO antibody, Macrophage receptor with collagenous structure antibody, macrophage receptor MARCO antibody, scavenger receptor class A member 2 antibody, SCARA2 antibody

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