Human Mrc2 Alexa Fluor® 594-conjugated Antibody

Monoclonal Mouse IgG_{2B} Clone # 1063704

Catalog Number: FAB5770T

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Mrc2 in direct ELISA.
Source	Monoclonal Mouse IgG_{2B} Clone # 1063704
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Mouse myeloma cell line, NS0-derived human Mrc2 Gly31-Ala1414 Accession # Q9UBG0
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

Flow Cytometry	Titration recommended for optimal concentration with starting range of 0.1-1 µg/1 million cells. Sample used for this experiment was THP-1 human acute monocytic leukemia cell line.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Do not freeze.** • 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Mrc2 (C-type Mannose Receptor 2), also know as MMR2, Endocytic Receptor 180 and uPARAP, is a 180-kDa type I transmembrane protein. It is one of the mannose receptor (MR) family members which share a common domain organization and have a broad range of biological functions (1). Mrc2 is an endocytic receptor that is found on migrating cells, including cancer cells, macrophages, fibroblasts and endothelial cells (2). Mature human Mrc2 is composed of 1449 amino acid (aa) that includes a 1384 aa extracellular domain (ECD), a 21 aa transmembrane region, and a 44 aa cytoplasmic domain. The ECD shows one ricin B-type lectin domain, one fibronectin type II domain and eight C-type lectin domains. Within the ECD, human Mrc2 shares 91% aa identity with mouse and rat Mrc2. Mrc2 plays an important role in extracellular matrix remodeling through interaction with its ligands, including Man, Fuc, NAcGlc, collagens and urokinase plasminogen activator receptor (uPAR) (1-3). This cell surface molecule has been reported to promote cell invasion through matrix remodeling by internalizing large fragments of collagen and routing it to the lysosome for intracellular degradation and cell chemotaxis (2). It has also been reported to interact with matrix metalloprotease-13 (MMP-13) and collagen V on the cell surface (4).

References:

1. Yuan, C. *et al.* (2016) Biochem. J. **473**:2359.
2. Durrel, T. *et al.* (2018) Nat. Commun. **9**:5178.
3. Behrendt, N. *et al.* (2000) J. Biol. Chem. **275**:1993.
4. Englehom, L.H. *et al.* (2001) Lab. Invest. **81**:1403.

PRODUCT SPECIFIC NOTICES

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