CLEC-10A (ER-MP23): sc-56109

SANTA CRUZ®
BIOTECHNOLOGY

The Power to Question

BACKGROUND

CLEC-10A (C-type lectin domain family 10, member A), also known as macrophage galactose and N-acetylgalactosamine-specific lectin (MGL), macrophage asialoglycoprotein-binding protein (M-ASGP-BP) or macrophage galactose/N-acetylgalactosamine-specific lectin), is a protein with galactose-binding activity and with sugar-binding specificity that is the same as that of the native lectin. CLEC-10A serves as a unique macrophage marker in mouse lung tissue due to its topographical site-dependent pattern of expression. Additionally, the most intense signal is observed in the extract from skin, suggesting that cells expressing this lectin are abundant in skin. CLEC-10A may also participate in the binding of the macrophages to tumor cells. Cells which stain positively for CLEC-10A are distributed in the connective tissue and in the interstice, particularly the dermis and subcutaneous layer of skin.

REFERENCES

1. Oda, S., et al. 1989. Binding of activated macrophages to tumor cells through a macrophage lectin and its role in macrophage tumoricidal activity. J. Biochem. 105: 1040-1043.

2. Ii, M., et al. 1990. Molecular cloning and sequence analysis of cDNA encoding the macrophage lectin specific for galactose and N-acetylgalactosamine. J. Biol. Chem. 265: 11295-11298.

3. Sato, M., et al. 1992. Molecular cloning and expression of cDNA encoding a galactose/N-acetylgalactosamine-specific lectin on mouse tumoricidal macrophages. J. Biochem. 111: 331-336.

4. Kimura, T., et al. 1995. Calcium-dependent conformation of a mouse macrophage calcium-type lectin. Carbohydrate binding activity is stabilized by an antibody specific for a calcium-dependent epitope. J. Biol. Chem. 270: 16056-16062.

CHROMOSOMAL LOCATION

Genetic locus: Clec10a (mouse) mapping to 11 B3.

SOURCE

CLEC-10A (ER-MP23) is a rat monoclonal antibody raised against macrophage cell lines of mouse origin.

PRODUCT

Each vial contains 200 µg IgG$_{2a}$ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CLEC-10A (ER-MP23) is available conjugated to agarose (sc-56109 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-56109 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-56109 PE), fluorescein (sc-56109 FITC), Alexa Fluor® 488 (sc-56109 AF488), Alexa Fluor® 546 (sc-56109 AF546), Alexa Fluor® 594 (sc-56109 AF594) or Alexa Fluor® 647 (sc-56109 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-56109 AF680) or Alexa Fluor® 790 (sc-56109 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

CLEC-10A (ER-MP23) is recommended for detection of CLEC-10A of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10^6 cells).

Suitable for use as control antibody for CLEC-10A siRNA (m): sc-72220, CLEC-10A shRNA Plasmid (m): sc-72220-SH and CLEC-10A shRNA (m) Lentiviral Particles: sc-72220-V.

Molecular Weight of CLEC-10A: 42 kDa.

Positive Controls: CLEC-10A (m): 293T Lysate: sc-125612.

DATA
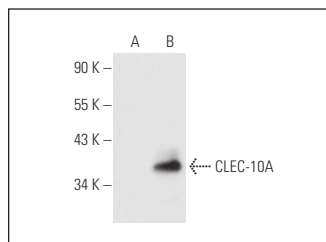
CLEC-10A (ER-MP23): sc-56109. Western blot analysis of CLEC-10A expression in non-transfected: sc-117752 (**A**) and mouse CLEC-10A transfected: sc-125612 (**B**) 293T whole cell lysates..

SELECT PRODUCT CITATIONS

1. Jensen, K.D., et al. 2011. Toxoplasma polymorphic effectors determine macrophage polarization and intestinal inflammation. Cell Host Microbe 9: 472-483.

2. Kumamoto, Y., et al. 2013. CD301b+ dermal dendritic cells drive T helper 2 cell-mediated immunity. Immunity 39: 733-743.

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 for detailed protocols and support products.