

DEC-205 (MG38): sc-23952

BACKGROUND

DEC-205 (LY75, lymphocyte antigen 75, GP200-MR6) is a 1,695 residue (mature form) multilectin receptor that belongs to the MMR (macrophage mannose receptor) family of multidomain molecules. MMR family molecules mediate membrane receptor targeting to endosomes or lysosomes rich in major histocompatibility complex class II (MHC II) products. Expressed in mature dendritic cells (DC), DEC-205 contains an extracellular N-terminal cysteine-rich domain, a fibronectin type II domain, ten C-type carbohydrate recognition domains, a single transmembrane region and a small cytoplasmic C-terminal domain (31 amino acids) containing a tyrosine at 1679. DEC-205 elicits either an agonistic or antagonistic effect on IL-4 function, which is demonstrated by its ability to imitate IL-4-induced maturation of epithelium or to inhibit IL-4-induced proliferation of T cells, respectively.

REFERENCES

1. Tungekar, M.F., et al. 1996. Bladder carcinomas and normal urothelium universally express gp200-MR6, a molecule functionally associated with the interleukin 4 receptor (CD 124). *Br. J. Cancer* 73: 429-432.
2. McKay, P.F., et al. 1998. The gp200-MR6 molecule which is functionally associated with the IL-4 receptor modulates B cell phenotype and is a novel member of the human macrophage mannose receptor family. *Eur. J. Immunol.* 28: 4071-4083.
3. Kato, M., et al. 1998. cDNA cloning of human DEC-205, a putative antigen-uptake receptor on dendritic cells. *Immunogenetics* 47: 442-450.
4. Mahnke, K., et al. 2000. The dendritic cell receptor for endocytosis, DEC-205, can recycle and enhance antigen presentation via major histocompatibility complex class II-positive lysosomal compartments. *J. Cell Biol.* 151: 673-684.
5. Kronin, V., et al. 2000. DEC-205 as a marker of dendritic cells with regulatory effects on CD8 T cell responses. *Int. Immunol.* 12: 731-735.

CHROMOSOMAL LOCATION

Genetic locus: LY75 (human) mapping to 2q24.2.

SOURCE

DEC-205 (MG38) is a mouse monoclonal antibody raised against purified CR-FnII protein in DEC-205 knockout mice.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

DEC-205 (MG38) is available conjugated to either phycoerythrin (sc-23952 PE) or fluorescein (sc-23952 FITC), 200 µg/ml, for IF, IHC(P) and FCM.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

DEC-205 (MG38) is recommended for detection of DEC-205 of human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10⁶ cells).

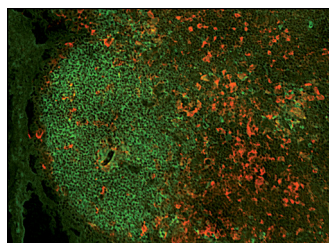
Suitable for use as control antibody for DEC-205 siRNA (h): sc-42860, DEC-205 shRNA Plasmid (h): sc-42860-SH and DEC-205 shRNA (h) Lentiviral Particles: sc-42860-V.

Molecular Weight: 205 kDa.

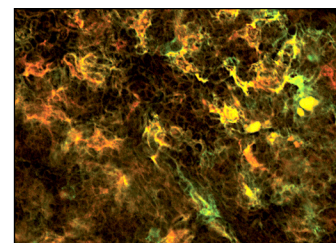
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



DEC-205 (MG38): sc-23952. Double immunofluorescent staining of normal human lymph node frozen section using CD19 (H1B19): sc-19650 (red immunofluorescence) and DEC-205 (MG38): sc-23952 (green immunofluorescence). Image kindly provided by Maggi Pack, Ph.D., Cellular Pathology & Immunology, The Rockefeller University.



DEC-205 (MG38): sc-23952. Double immunofluorescent staining of normal human lymph node frozen section using Integrin αX (KB90): sc-20051 (green immunofluorescence) and DEC-205 (MG38): sc-23952 (red immunofluorescence). Notice intense double staining of the T cell area shown (orange-yellow immunofluorescence). Image kindly provided by Maggi Pack, Ph.D., Cellular Pathology & Immunology, The Rockefeller University.

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.