

DEC-205 (F-4): sc-515016

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 the ability of DEC-205 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 (F-4) is a mouse monoclonal antibody raised against amino acids 1473-1722 mapping at the C-terminus of DEC-205 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

DEC-205 (F-4) is available conjugated to agarose (sc-515016 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515016 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515016 PE), fluorescein (sc-515016 FITC), Alexa Fluor® 488 (sc-515016 AF488), Alexa Fluor® 546 (sc-515016 AF546), Alexa Fluor® 594 (sc-515016 AF594) or Alexa Fluor® 647 (sc-515016 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515016 AF680) or Alexa Fluor® 790 (sc-515016 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

DEC-205 (F-4) is recommended for detection of precursor and mature forms of DEC-205 and DEC-205/DCL-1 fusion protein of human origin by Western Blotting (starting dilution 1:100, 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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 of DEC-205: 205 kDa.

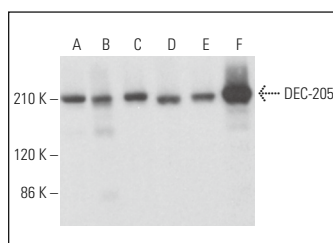
Positive Controls: human lymph node extract: sc-363768, THP-1 cell lysate: sc-2238 or TF-1 cell lysate: sc-2412.

RECOMMENDED SUPPORT REAGENTS

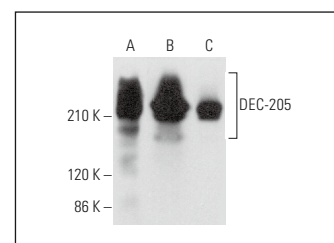
To ensure optimal results, the following support reagents are recommended:

- 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.
- 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
- 3) 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 (F-4): sc-515016. Western blot analysis of DEC-205 expression in TF-1 (A), COLO 205 (B), Daudi (C), U266 (D), BJAB (E) and GA-10 (F) whole cell lysates.



DEC-205 (F-4): sc-515016. Western blot analysis of DEC-205 expression in human lymph node tissue extract (A) and THP-1 (B) and TF-1 (C) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Mehdi, S., et al. 2020. LY75 suppression in mesenchymal epithelial ovarian cancer cells generates a stable hybrid EOC cellular phenotype, associated with enhanced tumor initiation, spreading and resistance to treatment in orthotopic xenograft mouse model. *Int. J. Mol. Sci.* 21: 4992.

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.