

CLEC-6 (H-87): sc-134742

BACKGROUND

The human β -glucan protein (Dectin-1) is a small, type II transmembrane receptor that enables β -glucan dependent, nonopsonic recognition of zymosan and other yeast-derived particles by primary macrophages. Dectin-1 is expressed in dendritic cells and is the human homolog of the C-type (calcium dependent) lectin-like receptor (CLEC) family that plays an important role in regulating innate immunity. The CLEC protein structure has a specific fold that provides a highly static scaffold for combinatorial display of variable antigen residues. This fold differs from the classic immunoglobulin fold, illustrating an evolutionary solution for balancing diversity against stability. CLEC-6 is a single-pass, type II transmembrane protein that is highly expressed in bone marrow and spleen and weakly expressed in peripheral blood leukocytes. CLEC-6 may function as a receptor in the antigen uptake at the infection location.

REFERENCES

1. Arce, I., et al. 2001. Molecular and genomic characterization of human DLEC, a novel member of the C-type lectin receptor gene family preferentially expressed on monocyte-derived dendritic cells. *Eur. J. Immunol.* 31: 2733-2740.
2. Hermanz-Falc3n, P., et al. 2001. Cloning of human Dectin-1, a novel C-type lectin-like receptor gene expressed on dendritic cells. *Immunogenetics* 53: 288-295.
3. Sobanov, Y., et al. 2001. A novel cluster of lectin-like receptor genes expressed in monocytic, dendritic and endothelial cells maps close to the NK receptor genes in the human NK gene complex. *Eur. J. Immunol.* 31: 3493-3503.
4. Yokota, K., et al. 2001. Identification of a human homologue of the dendritic cell-associated C-type lectin-1, Dectin-1. *Gene* 272: 51-60.
5. Gavino, A.C., et al. 2005. Identification and expression profiling of a human C-type lectin, structurally homologous to mouse Dectin-2. *Exp. Dermatol.* 14: 281-288.
6. McMahon, S.A., et al. 2005. The C-type lectin fold as an evolutionary solution for massive sequence variation. *Nat. Struct. Mol. Biol.* 12: 886-892.

CHROMOSOMAL LOCATION

Genetic locus: CLEC4D (human) mapping to 12p13.31.

SOURCE

CLEC-6 (H-87) is a rabbit polyclonal antibody raised against amino acids 39-125 mapping within an extracellular domain of CLEC-6 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

CLEC-6 (H-87) is recommended for detection of CLEC-6 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 CLEC-6 siRNA (h): sc-60398, CLEC-6 shRNA Plasmid (h): sc-60398-SH and CLEC-6 shRNA (h) Lentiviral Particles: sc-60398-V.

Molecular Weight of CLEC-6: 30 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.