Dectin-2 (M-45): sc-134906



The Power to Question

BACKGROUND

Together, Dectin-1 and Dectin-2 make up the unique subfamily of dendritic cell-associated C-type lectins. Dectin-2 is expressed on antigen-presenting cells, where it interacts with its putative ligands on T cells. That interaction may deliver co-stimulatory signals in naive T cells. Dectin-2 expression is upregulated during monocyte activation and maturation at inflammatory lesions. Broadband UV-B upregulates Dectin-2 expression in Langerhans cells by activating the Dectin-2 gene promoter, suggesting that this protein plays a crucial role in the mediation of UV-induced immunosuppression. In cattle, Dectin-2 expressed by dendritic cells may also play a role in the recognition of invading antigens in lymph nodes. Dectin-2 functions as a pattern recognition receptor for fungi that activates signaling through FcRy to induce innate immune responses.

REFERENCES

- Ariizumi, K., Shen, G.L., Shikano, S., Ritter, R., Zukas, P., Edelbaum, D., Morita, A. and Takashima, A. 2000. Cloning of a second dendritic cellassociated C-type lectin (Dectin-2) and its alternatively spliced isoforms. J. Biol. Chem. 275: 11957-11963.
- Bonkobara, M., Zukas, P.K., Shikano, S., Nakamura, S., Cruz, P.D. and Ariizumi, K. 2001. Epidermal Langerhans cell-targeted gene expression by a Dectin-2 promoter. J. Immunol. 167: 6893-6900.
- Aragane, Y., Maeda, A., Schwarz, A., Tezuka, T., Ariizumi, K. and Schwarz, T. 2003. Involvement of Dectin-2 in ultraviolet radiation-induced tolerance. J. Immunol. 171: 3801-3807.
- Kanazawa, N., Tashiro, K., Inaba, K., Lutz, M.B. and Miyachi, Y. 2004.
 Molecular cloning of human Dectin-2. J. Invest. Dermatol. 122: 1522-1524.
- Bonkobara, M., Yagihara, H., Yudate, T., Chung, J.S., Washizu, T., Ariizumi, K. and Cruz, P.D. 2005. Ultraviolet-B radiation upregulates expression of Dectin-2 on epidermal Langerhans cells by activating the gene promoter. Photochem. Photobiol. 81: 944-948.
- 6. Gavino, A.C., Chung, J.S., Sato, K., Ariizumi, K. and Cruz, P.D. 2005. Identification and expression profiling of a human C-type lectin, structurally homologous to mouse Dectin-2. Exp. Dermatol. 14: 281-288.
- Taylor, P.R., Reid, D.M., Heinsbroek, S.E., Brown, G.D., Gordon, S. and Wong, S.Y. 2005. Dectin-2 is predominantly myeloid restricted and exhibits unique activation-dependent expression on maturing inflammatory monocytes elicited *in vivo*. Eur. J. Immunol. 35: 2163-2174.
- 8. Bonkobara, M., Hoshino, M., Yagihara, H., Tamura, K., Isotani, M., Tanaka, Y., Washizu, T. and Ariizumi, K. 2006. Identification and gene expression of bovine C-type lectin Dectin-2. Vet. Immunol. Immunopathol. 110: 179-186.
- McGreal, E.P., Rosas, M., Brown, G.D., Zamze, S., Wong, S.Y., Gordon, S., Martinez-Pomares, L. and Taylor, P.R. 2006. The carbohydrate-recognition domain of Dectin-2 is a C-type lectin with specificity for high mannose. Glycobiology 16: 422-430.

STORAGE

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

CHROMOSOMAL LOCATION

Genetic locus: Clec4n (mouse) mapping to 6 F2.

SOURCE

Dectin-2 (M-45) is a rabbit polyclonal antibody raised against amino acids 141-185 mapping within a C-terminal extracellular domain of Dectin-2 of mouse origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Dectin-2 (M-45) is recommended for detection of Dectin-2 of mouse 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 Dectin-2 siRNA (m): sc-63279, Dectin-2 shRNA Plasmid (m): sc-63279-SH and Dectin-2 shRNA (m) Lentiviral Particles: sc-63279-V.

Molecular Weight of Dectin-2: 24 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.



Try **Dectin-2 (Z-17): sc-73898**, our highly recommended monoclonal alternative to Dectin-2 (M-45).