

Dectin-2 (m): 293T Lysate: sc-119729

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 FcγR to induce innate immune responses.

REFERENCES

1. Ariizumi, K., Shen, G.L., Shikano, S., Ritter, R., Zukas, P., Edelbaum, D., Morita, A. and Takashima, A. 2000. Cloning of a second dendritic cell-associated C-type lectin (Dectin-2) and its alternatively spliced isoforms. *J. Biol. Chem.* 275: 11957-11963.
2. 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.
3. 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.
4. 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.
5. Bonkobara, M., Yagihara, H., Yodate, 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.
7. 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.
9. 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 -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

CHROMOSOMAL LOCATION

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

PRODUCT

Dectin-2 (m): 293T Lysate represents a lysate of mouse Dectin-2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

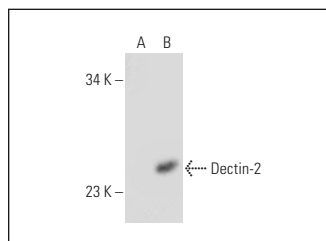
APPLICATIONS

Dectin-2 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Dectin-2 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Dectin-2 (Z-17): sc-73898 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Dectin-2 expression in Dectin-2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

DATA



Dectin-2 (Z-17): sc-73898. Western blot analysis of Dectin-2 expression in non-transfected: sc-117752 (A) and mouse Dectin-2 transfected: sc-119729 (B) 293T whole cell lysates.

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.