

CLEC-16A (H-4): sc-398516

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 homologue of the C-type (calcium dependent) lectin-like receptor (CLEC) family that plays an important role in regulating innate immunity. CLEC-16A (C-type lectin domain family 16, member A), also known as Gop-1, is a 1,053 amino acid member of the CLEC family and is expressed in dendritic cells, immune cells, B lymphocytes and natural killer cells. Defects in the gene encoding CLEC-16A are associated with Insulin-dependent diabetes mellitus (IDDM) (also known as type I diabetes) and primary adrenal insufficiency. Multiple isoforms of CLEC-16A exist due to alternative splicing events.

REFERENCES

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- Nakajima, D., Okazaki, N., Yamakawa, H., Kikuno, R., Ohara, O. and Nagase, T. 2002. Construction of expression-ready cDNA clones for KIAA genes: manual curation of 330 KIAA cDNA clones. *DNA Res.* 9: 99-106.
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- Hakonarson, H., Grant, S.F., Bradfield, J.P., Marchand, L., Kim, C.E., Glessner, J.T., Grabs, R., Casalunovo, T., Taback, S.P., Frackelton, E.C., Lawson, M.L., Robinson, L.J., Skraban, R., Lu, Y., et al. 2007. A genome-wide association study identifies KIAA0350 as a type 1 diabetes gene. *Nature* 448: 591-594.
- Skiningsrud, B., Husebye, E.S., Pearce, S.H., McDonald, D.O., Brandal, K., Wolff, A.B., Lovas, K., Egeland, T. and Undlien, D.E. 2008. Polymorphisms in CLEC-16A and CIITA at 16p13 are associated with primary adrenal insufficiency. *J. Clin. Endocrinol. Metab.* 93: 3310-3317.

CHROMOSOMAL LOCATION

Genetic locus: CLEC16A (human) mapping to 16p13.13; Clec16a (mouse) mapping to 16 A1.

SOURCE

CLEC-16A (H-4) is a mouse monoclonal antibody raised against amino acids 61-360 mapping near the N-terminus of CLEC-16A of human origin.

PRODUCT

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

RESEARCH USE

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

APPLICATIONS

CLEC-16A (H-4) is recommended for detection of CLEC-16A of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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-16A siRNA (h): sc-93056, CLEC-16A siRNA (m): sc-142379, CLEC-16A shRNA Plasmid (h): sc-93056-SH, CLEC-16A shRNA Plasmid (m): sc-142379-SH, CLEC-16A shRNA (h) Lentiviral Particles: sc-93056-V and CLEC-16A shRNA (m) Lentiviral Particles: sc-142379-V.

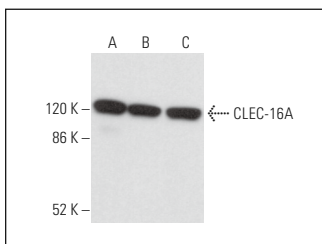
Molecular Weight of CLEC-16A: 118 kDa.

Positive Controls: NK-92 whole cell lysate: sc-364788, MCF7 whole cell lysate: sc-2206 or BJAB whole cell lysate: sc-2207.

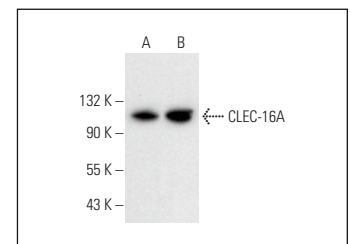
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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 L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



CLEC-16A (H-4): sc-398516. Western blot analysis of CLEC-16A expression in BJAB (A), HL-60 (B) and MCF7 (C) whole cell lysates.



CLEC-16A (H-4): sc-398516. Western blot analysis of CLEC-16A expression in NK-92 (A) and BJAB (B) whole cell lysates.

SELECT PRODUCT CITATIONS

- Rallabandi, H.R., Singh, K.M., Looger, L.L. and Nath, S.K. 2025. Defining mechanistic links between the non-coding variant rs17673553 in CLEC16A and lupus susceptibility. *Int. J. Mol. Sci.* 26: 314.

STORAGE

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