



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

# CD1A (h2): 293T Lysate: sc-171320

## BACKGROUND

The CD1 multigene family encodes five forms of the CD1 T cell surface glycoprotein in human, designated CD1A, 1B, 1C, 1D and 1E. CD1, a type 1 membrane protein, has structural similarity to the MHC class I antigen and has been shown to present lipid antigens for recognition by T lymphocytes. CD1 antigens are associated with  $\beta$ -2-Microglobulin and expressed on cortical thymocytes, Langerhans cells, a B cell subset and some dendritic cells. Specifically, CD1A is a marker for Langerhans cell histiocytosis (LCH) and is found on interdigitating cells. Adaptor-protein complexes and CD1-associated chaperones control CD1 trafficking and the development and activation of CD1-restricted T cells. Constitutive endocytosis of CD1B molecules and the differential sorting of MHC class II from lysosomes separate peptide- and lipid antigen-presenting molecules during dendritic cell maturation. CD1B is also expressed in interdigitating cells. The human CD1 genes are all closely linked in a cluster mapping at chromosome 1q23.1.

## REFERENCES

- Martin, L.H., Calabi, F., Lefebvre, F.A., Bilsland, C.A. and Milstein, C. 1987. Structure and expression of the human thymocyte antigens CD1A, CD1B, and CD1C. *Proc. Natl. Acad. Sci. USA* 84: 9189-9193.
- Aruffo, A. and Seed, B. 1989. Expression of cDNA clones encoding the thymocyte antigens CD1A, B, C demonstrates a hierarchy of exclusion in fibroblasts. *J. Immunol.* 143: 1723-1730.
- Longley, J., Kraus, J., Alonso, M. and Edelson, R. 1989. Molecular cloning of CD1A (T6), a human epidermal dendritic cell marker related to class I MHC molecules. *J. Invest. Dermatol.* 92: 628-631.
- Sotzik, F., Boyd, A. and Shortman, K. 1993. Surface antigens of human thymocyte populations defined by CD3, CD4 and CD8 expression: CD1A is expressed by mature thymocytes but not peripheral T cells. *Immunol. Lett.* 36: 101-106.
- Porcelli, S.A. 1995. The CD1 family: a third lineage of antigen-presenting molecules. *Adv. Immunol.* 59: 1-18.
- Melian, A., Beckman, E.M., Porcelli, S.A. and Brenner, M.B. 1996. Antigen presentation by CD1 and MHC-encoded class I-like molecules. *Curr. Opin. Immunol.* 8: 82-88.
- Storkus, W.J., Wei, M., Cresswell, P. and Dawson, J.R. 1996. Class I-like CD1A-C do not protect target cells from NK-mediated cytotoxicity. *Cell. Immunol.* 167: 154-156.
- Bauer, A., Huttinger, R., Staffler, G., Hansmann, C., Schmidt, W., Majdic, O., Knapp, W. and Stockinger, H. 1997. Analysis of the requirement for  $\beta$ -2-Microglobulin for expression and formation of human CD1 antigens. *Eur. J. Immunol.* 27: 1366-1373.
- Brigl, M. and Brenner, M.B. 2004. CD1: antigen presentation and T cell function. *Annu. Rev. Immunol.* 22: 817-890.

## CHROMOSOMAL LOCATION

Genetic locus: CD1A (human) mapping to 1q23.1.

## PRODUCT

CD1A (h2): 293T Lysate represents a lysate of human CD1A transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## APPLICATIONS

CD1A (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive CD1A antibodies. Recommended use: 10-20  $\mu$ l per lane.

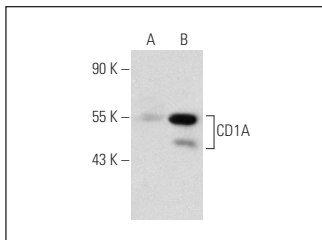
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

CD1A (CTB6): sc-5265 is recommended as a positive control antibody for Western Blot analysis of enhanced human CD1A expression in CD1A transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:  
 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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.

## DATA



CD1A (CTB6): sc-5265. Western blot analysis of CD1A expression in non-transfected: sc-117752 (A) and human CD1A transfected: sc-171320 (B) 293T whole cell lysates.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.