

CERCAM (D-4): sc-514083

BACKGROUND

CERCAM (cerebral endothelial cell adhesion molecule), also known as GLT25D3 (glycosyltransferase 25 family member 3), is a 595 amino acid protein that is localized to the endoplasmic reticulum. Despite belonging to the glycosyltransferase 25 family, CERCAM has no glucosyltransferase activity and very low, if any, β -galactosyltransferase activity. CERCAM is highly expressed in secretory and nervous tissues and likely functions as a cell adhesion protein that assists leukocyte transmigration across the blood-brain barrier. There are two isoforms of CERCAM that are produced as a result of alternative splicing events.

REFERENCES

- Zapolska-Downar, D. and Zapolski-Downar, A. 1994. Role of adhesion molecules in interactions of endothelium with leukocytes in inflammatory processes. *Postepy Hig. Med. Dosw.* 48: 259-273.
- Steeber, D.A. and Tedder, T.F. 2000. Adhesion molecule cascades direct lymphocyte recirculation and leukocyte migration during inflammation. *Immunol. Res.* 22: 299-317.
- Starzyk, R.M., et al. 2000. Cerebral cell adhesion molecule: a novel leukocyte adhesion determinant on blood-brain barrier capillary endothelium. *J. Infect. Dis.* 181: 181-187.

CHROMOSOMAL LOCATION

Genetic locus: CERCAM (human) mapping to 9q34.11; CERCAM (mouse) mapping to 2 B.

SOURCE

CERCAM (D-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 186-207 within an internal region of CERCAM of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CERCAM (D-4) is available conjugated to agarose (sc-514083 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514083 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514083 PE), fluorescein (sc-514083 FITC), Alexa Fluor[®] 488 (sc-514083 AF488), Alexa Fluor[®] 546 (sc-514083 AF546), Alexa Fluor[®] 594 (sc-514083 AF594) or Alexa Fluor[®] 647 (sc-514083 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-514083 AF680) or Alexa Fluor[®] 790 (sc-514083 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514083 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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RESEARCH USE

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

APPLICATIONS

CERCAM (D-4) is recommended for detection of CERCAM 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 CERCAM siRNA (h): sc-92783, CERCAM siRNA (m): sc-142294, CERCAM shRNA Plasmid (h): sc-92783-SH, CERCAM shRNA Plasmid (m): sc-142294-SH, CERCAM shRNA (h) Lentiviral Particles: sc-92783-V and CERCAM shRNA (m) Lentiviral Particles: sc-142294-V.

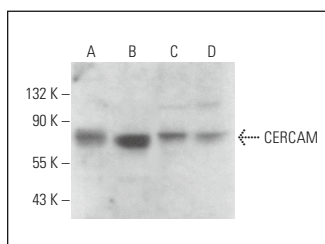
Molecular Weight of CERCAM isoform 1/2: 68/59 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136, U-87 MG cell lysate: sc-2411 or RT-4 whole cell lysate: sc-364257.

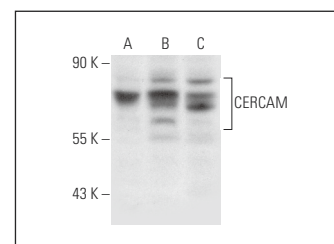
RECOMMENDED SUPPORT REAGENTS

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 A/G PLUS-Agarose: sc-2003 (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



CERCAM (D-4): sc-514083. Western blot analysis of CERCAM expression in HEK293 (A), Caki-1 (B) and PC-12 (C) whole cell lysates and KNRK nuclear extract (D).



CERCAM (D-4): sc-514083. Western blot analysis of CERCAM expression in U-87 MG (A), RT-4 (B) and HEK293 (C) whole cell lysates.

SELECT PRODUCT CITATIONS

- Dashzeveg, N.K., et al. 2023. Dynamic glycoprotein hyposialylation promotes chemotherapy evasion and metastatic seeding of quiescent circulating tumor cell clusters in breast cancer. *Cancer Discov.* 13: 2050-2071.

STORAGE

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