SANTA CRUZ BIOTECHNOLOGY, INC.

# CLEC-4E (B-7): sc-390806

## BACKGROUND

The C-type lectin/C-type lectin-like domain (CTL/CTLD) superfamily consists of a variety of proteins that share a common protein fold and have diverse functions, including cell-cell signaling, cell adhesion, glycoprotein turnover and immune responses. CLEC-4E (C-type lectin domain family 4, member E), also known as mincle (macrophage-inducible C-type lectin) or CLECSF9, is a 219 amino acid single-pass type II membrane protein that contains one C-type lectin domain. Expressed in monocytes, CLEC-4E functions as a downstream target of C/EBP β and is thought to play a role in the inflammatory response, possibly via transcriptional control of C/EBP β. Human CLEC-4E shares 67% sequence identity with its mouse counterpart, suggesting a similar function between species. CLEC-4E exists as multiple alternatively spliced isoforms that are encoded by a gene which maps to a natural killer gene complex region on human chromosome 12.

## CHROMOSOMAL LOCATION

Genetic locus: CLEC4E (human) mapping to 12p13.31; Clec4e (mouse) mapping to 6 F2.

## SOURCE

CLEC-4E (B-7) is a mouse monoclonal antibody raised against amino acids 44-89 mapping within an extracellular domain of CLEC-4E of human origin.

## PRODUCT

Each vial contains 200 µg $IgG_{2b}$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CLEC-4E (B-7) is available conjugated to agarose (sc-390806 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-390806 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390806 PE), fluorescein (sc-390806 FITC), Alexa Fluor® 488 (sc-390806 AF488), Alexa Fluor® 546 (sc-390806 AF546), Alexa Fluor® 594 (sc-390806 AF594) or Alexa Fluor® 647 (sc-390806 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390806 AF680) or Alexa Fluor® 790 (sc-390806 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

## APPLICATIONS

CLEC-4E (B-7) is recommended for detection of CLEC-4E of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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-4E siRNA (h): sc-95678, CLEC-4E siRNA (m): sc-142388, CLEC-4E shRNA Plasmid (h): sc-95678-SH, CLEC-4E shRNA Plasmid (m): sc-142388-SH, CLEC-4E shRNA (h) Lentiviral Particles: sc-95678-V and CLEC-4E shRNA (m) Lentiviral Particles: sc-142388-V.

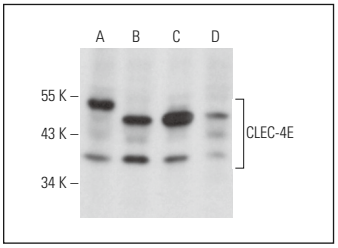
Molecular Weight of CLEC-4E: 35 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, Caki-1 cell lysate: sc-2224 or Jurkat whole cell lysate: sc-2204.

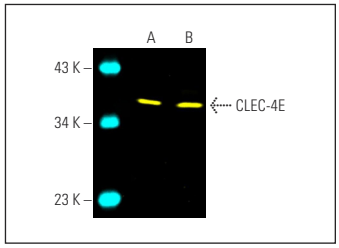
## STORAGE

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

## DATA




CLEC-4E (B-7): sc-390806. Western blot analysis of CLEC-4E expression in Caki-1 (**A**), THP-1 (**B**), Jurkat (**C**) and RAW 264.7 (**D**) whole cell lysates.




CLEC-4E (B-7) Alexa Fluor® 488: sc-390806 AF488. Direct fluorescent western blot analysis of CLEC-4E expression in Jurkat (**A**) and THP-1 (**B**) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Cruz Marker™ Molecular Weight Standards detected with Cruz Marker™ MW Tag-Alexa Fluor® 647: sc-516791.

## SELECT PRODUCT CITATIONS


1. Tan, R.Z., et al. 2020. Quercetin protects against cisplatin-induced acute kidney injury by inhibiting mincle/Syk/NFκB signaling maintained macrophage inflammation. Phytother. Res. 34: 139-152.
2. Hui, D., et al. 2020. *Astragalus propinquus* Schischkin and *Panax notoginseng* (A&P) compound relieved cisplatin-induced acute kidney injury through inhibiting the mincle maintained macrophage inflammation. J. Ethnopharmacol. 252: 112637.
3. Lv, L.L., et al. 2021. SAP130 released by damaged tubule drives necroinflammation via miRNA-219c/Mincle signaling in acute kidney injury. Cell Death Dis. 12: 866.
4. Lin, X., et al. 2022. *Astragalus mongholicus* Bunge and *Panax notoginseng* formula (A&P) improves renal mesangial cell damage in diabetic nephropathy by inhibiting the inflammatory response of infiltrated macrophages. BMC Complement. Med. Ther. 22: 17.
5. Wang, Y., et al. 2023. The therapeutic role and mechanism of 4-methoxycinnamic acid in fungal keratitis. Int. Immunopharmacol. 116: 109782.
6. Tan, R.Z., et al. 2023. Macrophages mediate psoriasis via Mincle-dependent mechanism in mice. Cell Death Discov. 9: 140.
7. Yang, G., et al. 2023. Mesenchymal stem cells transplantation combined with IronQ attenuates ICH-induced inflammation response via Mincle/syk signaling pathway. Stem Cell Res. Ther. 14: 131.
8. Liu, P.Y., et al. 2023. Infiltrating myeloid cell-derived properdin markedly promotes microglia-mediated neuroinflammation after ischemic stroke. J. Neuroinflammation 20: 260.


## RESEARCH USE

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