

CD69 (D-3): sc-373799



The Power to Question

BACKGROUND

CD69 is expressed as a disulfide-linked homodimer called the activation inducer molecule (AIM), which is composed of two differentially glycosylated forms of a single protein. CD69 is among the earliest antigens to appear after activation of T cells, B cells and NK cells. CD69 is expressed constitutively on platelets, CD4⁺ or CD8⁺ thymocytes, and germinal center T cells, but is absent from resting lymphocytes.

CHROMOSOMAL LOCATION

Genetic locus: CD69 (human) mapping to 12p13.31; Cd69 (mouse) mapping to 6 F3.

SOURCE

CD69 (D-3) is a mouse monoclonal antibody raised against amino acids 1-199 representing full length CD69 of human origin.

PRODUCT

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

CD69 (D-3) is available conjugated to agarose (sc-373799 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-373799 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-373799 PE), fluorescein (sc-373799 FITC), Alexa Fluor® 488 (sc-373799 AF488), Alexa Fluor® 546 (sc-373799 AF546), Alexa Fluor® 594 (sc-373799 AF594) or Alexa Fluor® 647 (sc-373799 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-373799 AF680) or Alexa Fluor® 790 (sc-373799 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE

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

APPLICATIONS

CD69 (D-3) is recommended for detection of CD69 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 CD69 siRNA (h): sc-42800, CD69 siRNA (m): sc-42801, CD69 shRNA Plasmid (h): sc-42800-SH, CD69 shRNA Plasmid (m): sc-42801-SH, CD69 shRNA (h) Lentiviral Particles: sc-42800-V and CD69 shRNA (m) Lentiviral Particles: sc-42801-V.

Molecular Weight of CD69 dimer: 60 kDa.

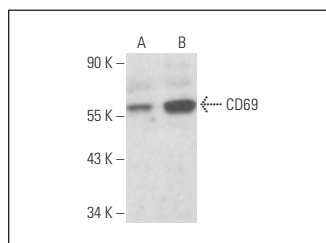
Molecular Weight of glycosylated CD69 subunits: 27/33 kDa.

Positive Controls: CD69 (h): 293T Lysate: sc-175259, CTLL-2 cell lysate: sc-2242 or WEHI-231 whole cell lysate: sc-2213.

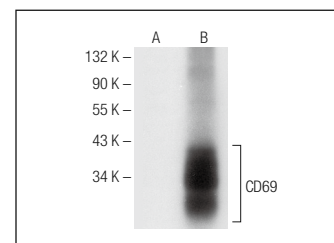
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



CD69 (D-3): sc-373799. Western blot analysis of CD69 expression in CTLL-2 (A) and WEHI-231 (B) whole cell lysates.



CD69 (D-3): sc-373799. Western blot analysis of CD69 expression in non-transfected: sc-117752 (A) and human CD69 transfected: sc-175259 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Zhou, X., et al. 2018. Ketamine induces apoptosis in lung adenocarcinoma cells by regulating the expression of CD69. *Cancer Med.* 7: 788-795.
- Li, Z., et al. 2020. Brain transforms natural killer cells that exacerbate brain edema after intracerebral hemorrhage. *J. Exp. Med.* 217: e20200213.
- Luo, X.Q., et al. 2021. Flagellin alleviates airway allergic response by stabilizing eosinophils through modulating oxidative stress. *J. Innate Immun.* 13: 333-344.
- Chen, C.W., et al. 2022. Activin A downregulates the CD69-MT2A axis via p38MAPK to induce erythroid differentiation that sensitizes Bcr-Abl-positive cells to imatinib. *Exp. Cell Res.* 417: 113219.
- Jiménez-Fernández, M., et al. 2022. CD69-oxLDL ligand engagement induces programmed cell death 1 (PD-1) expression in human CD4⁺ T lymphocytes. *Cell. Mol. Life Sci.* 79: 468.
- Zhang, Z., et al. 2023. Lymphocyte-related immunomodulatory therapy with siponimod (BAF-312) improves outcomes in mice with acute intracerebral hemorrhage. *Aging Dis.* 14: 966-991.
- Qian, B., et al. 2024. Podocyte SIRPα reduction aggravates lupus nephritis via promoting T cell inflammatory responses. *Cell Rep.* 43: 114249.
- Chen, X., et al. 2025. Enhancing immunotherapy efficacy in colorectal cancer: targeting the FGR-AKT-SP1-DKK1 axis with DCC-2036 (Rebastinib). *Cell Death Dis.* 16: 8.

RESEARCH USE

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