SANTA CRUZ BIOTECHNOLOGY, INC.

CD42b (E-8): sc-271171

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

CD42a is a single-chain membrane glycoprotein that forms a noncovalent complex with CD42b. CD42b, also known as glycoprotein Ib α (GPIb α) is a membrane glycoprotein that is composed of α and β chains. The CD42b β chain is also designated CD42c, and is expressed on platelets and megakaryocytes. CD42a and CD42b are also present on platelets and megakaryocytes, and the complex is a major component of the platelet surface. The complex acts as a receptor for von Willebrand's factor and as a von Willebrand's factor-dependent adhesion receptor.

CHROMOSOMAL LOCATION

Genetic locus: GP1BA (human) mapping to 17p13.2.

SOURCE

CD42b (E-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 587-620 at the C-terminus of CD42b 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.

CD42b (E-8) is available conjugated to agarose (sc-271171 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271171 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271171 PE), fluorescein (sc-271171 FITC), Alexa Fluor® 488 (sc-271171 AF488), Alexa Fluor® 546 (sc-271171 AF546), Alexa Fluor® 594 (sc-271171 AF594) or Alexa Fluor® 647 (sc-271171 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271171 AF680) or Alexa Fluor® 790 (sc-271171 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-271171 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

CD42b (E-8) is recommended for detection of CD42b α chain of 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 CD42b siRNA (h): sc-42789, CD42b shRNA Plasmid (h): sc-42789-SH and CD42b shRNA (h) Lentiviral Particles: sc-42789-V.

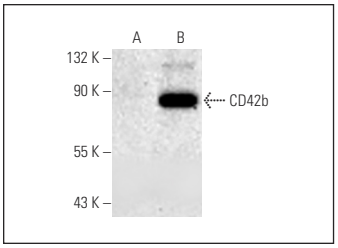
Molecular Weight of CD42b: 143 kDa.

Positive Controls: human platelet extract: sc-363773 or CD42b (h): 293T Lysate: sc-114145.

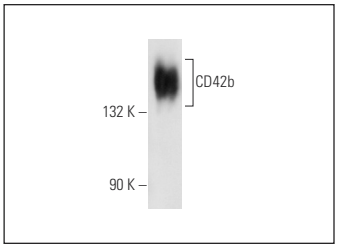
RECOMMENDED SUPPORT REAGENTS

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



CD42b (E-8): sc-271171. Western blot analysis of CD42b expression in non-transfected: sc-117752 (**A**) and human CD42b transfected: sc-114145 (**B**) 293T whole cell lysates.



CD42b (E-8): sc-271171. Western blot analysis of CD42b expression in human platelet extract.

SELECT PRODUCT CITATIONS

1. McCoy, M., et al. 2016. Molecular dynamics of FMRP and other RNA-binding proteins in MEG-01 differentiation: the role of mRNP complexes in non-neuronal development. Biochem. Cell Biol. 94: 597-608.
2. Reitsma, S.E., et al. 2021. Role of platelets in regulating activated coagulation factor XI activity. Am. J. Physiol., Cell Physiol. 320: C365-C374.
3. Hu, S., et al. 2021. Platelet membrane and stem cell exosome hybrid enhances cellular uptake and targeting to heart injury. Nano Today 39: 101210.
4. Arciprete, F., et al. 2023. Inhibition of CXCR1/2 reduces the emperipolesis between neutrophils and megakaryocytes in the Gata1^{low} model of myelofibrosis. Exp. Hematol. E-published.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.