SANTA CRUZ BIOTECHNOLOGY, INC.

Platelet IIb/IIIa complex (85/661): sc-73544

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Clone 85/661 detects an epitope of the Fibrinogen receptor and is platelet specific; it does not recognize monocytes, leucokytes, lymphocytes, erythrocytes, leukemic cell lines or fibroblast cell lines. The Fibrinogen receptor on platelets is a member of the integrin family and consists of two subunit glycoproteins, Integrin α2b and Integrin β3 in a 1:1 stoichiometric ratio known as glycoprotein complex IIb/IIIa. It also acts as a receptor for von Willebrand factor and Fibronectin. Integrins are heterodimeric integral membrane proteins composed of an α chain and a β chain. α chain 2b undergoes posttranslational cleavage to yield disulfide-linked light and heavy chains that join with β3 to form a Fibronectin receptor expressed in platelets that plays a crucial role in coagulation. Mutations that interfere with this role result in thrombasthenia.

REFERENCES

1. Parise, L.V., et al. 1985. Platelet membrane glycoprotein IIb-IIIa complex incorporated into phospholipid vesicles. Preparation and morphology. J. Biol. Chem. 260: 1750-1756.
2. Bird, C., et al. 1986. Immunochemical characterization of a new platelet specific monoclonal antibody and its use to demonstrate the cytoskeletal association of the platelet glycoprotein IIb/IIIa complex. Biosci. Rep. 6: 323-333.
3. Bray, P.F., et al. 1986. Biogenesis of the platelet receptor for Fibrinogen: evidence for separate precursors for glycoproteins IIb and IIIa. Proc. Natl. Acad. Sci. USA 83: 1480-1484.
4. Pytela, R., et al. 1986. Platelet membrane glycoprotein IIb/IIIa: member of a family of Arg-Gly-Asp—specific adhesion receptors. Science 231: 1559-1562.
5. Prandini, M.H., et al. 1988. Isolation of the human platelet glycoprotein IIb gene and characterization of the 5' flanking region. Biochem. Biophys. Res. Commun. 156: 595-601.
6. Bray, P.F., et al. 1988. Physical linkage of the genes for platelet membrane glycoproteins IIb and IIIa. Proc. Natl. Acad. Sci. USA 85: 8683-8687.

CHROMOSOMAL LOCATION

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

SOURCE

Platelet IIb/IIIa complex (85/661) is a mouse monoclonal antibody raised against platelets of human origin.

PRODUCT

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

STORAGE

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

APPLICATIONS

Platelet IIb/IIIa complex (85/661) is recommended for detection of Platelet IIb and Platelet IIIa of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

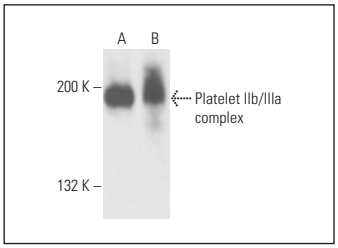
Molecular Weight of Platelet IIb/IIIa: 200 kDa.

Positive Controls: human platelet extract: sc-363773 or human PBL whole cell lysate.

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



Platelet IIb/IIIa complex (85/661): sc-73544. Western blot analysis of Platelet IIb/IIIa complex expression in human platelet extract (**A**) and human PBL whole cell lysate (**B**) under non-reducing conditions.

SELECT PRODUCT CITATIONS

1. Hong, C.S., et al. 2014. Isolation and characterization of CD34+ blast-derived exosomes in acute myeloid leukemia. PLoS ONE 9: e103310.
2. Bortot, B., et al. 2022. Platelet activation in ovarian cancer ascites: assessment of GPIIb/IIIa and PF4 in small extracellular vesicles by nano-flow cytometry analysis. Cancers 14: 4100.

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.