

CD42d (H-300): sc-25807

BACKGROUND

In the early phase of primary hemostasis, platelets adhere to damaged blood vessel walls by binding via the CD42 complex, also designated platelet glycoprotein (GP) complex, to the von Willebrand factor (vWf) protein, which is exposed on the subendothelium. The CD42 complex contains of four subunits, CD42b (GPIb α) and CD42c (GPIb β), which are linked by a disulfide bridge, and CD42a (GPIX) and CD42d (GPV), which are noncovalently linked to the complex. The CD42 complex is specifically expressed in platelets and megakaryocytes. Cleavage of CD42d by thrombin produces a soluble fragment and a membrane associated fragment, which merits CD42d as a useful marker for platelet activation by thrombin. The gene encoding human CD42d maps to chromosome 3q29.

REFERENCES

1. Lanza, F., et al. 1993. Cloning and characterization of the gene encoding the human platelet glycoprotein V. A member of the leucine-rich glycoprotein family cleaved during thrombin-induced platelet activation. *J. Biol. Chem.* 268: 20801-20807.
2. Clemetson, K.J., et al. 1995. Platelet GPIb-V-IX complex. Structure, function, physiology, and pathology. *Semin. Thromb. Hemost.* 21: 130-136.
3. Yagi, M., et al. 1995. Human platelet glycoproteins V and IX: mapping of two leucine-rich glycoprotein genes to chromosome 3 and analysis of structures. *Biochemistry* 34: 16132-16137.
4. Koskela, S., et al. 1998. Genetic polymorphism in human platelet glycoprotein GP Ib/IX/V complex is enriched in GP V (CD42d). *Tissue Antigens* 52: 236-241.
5. Kahn, M.L., et al. 1999. Glycoprotein V-deficient platelets have undiminished thrombin responsiveness and do not exhibit a Bernard-Soulier phenotype. *Blood* 94: 4112-4121.
6. Ravanat, C., et al. 2000. GPV is a marker of *in vivo* platelet activation—study in a rat thrombosis model. *Thromb. Haemost.* 83: 327-333.
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CHROMOSOMAL LOCATION

Genetic locus: GP5 (human) mapping to 3q29; Gp5 (mouse) mapping to 16 B2.

SOURCE

CD42d (H-300) is a rabbit polyclonal antibody raised against amino acids 17-316 mapping within an extracellular domain of CD42d of human origin.

PRODUCT

Each vial contains 200 μ g IgG 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

CD42d (H-300) is recommended for detection of CD42d of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

CD42d (H-300) is also recommended for detection of CD42d in additional species, including equine.

Suitable for use as control antibody for CD42d siRNA (h): sc-61913, CD42d siRNA (m): sc-63265, CD42d shRNA Plasmid (h): sc-61913-SH, CD42d shRNA Plasmid (m): sc-63265-SH, CD42d shRNA (h) Lentiviral Particles: sc-61913-V and CD42d shRNA (m) Lentiviral Particles: sc-63265-V.

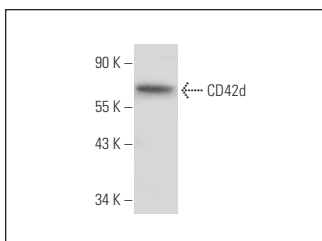
Molecular Weight of CD42d: 82 kDa.

Positive Controls: Daudi cell lysate: sc-2415.

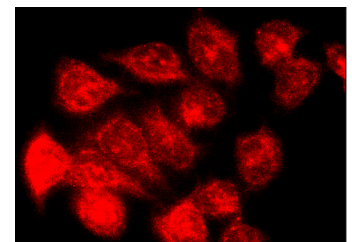
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CD42d (H-300): sc-25807. Western blot analysis of CD42d expression in Daudi whole cell lysate.



CD42d (H-300): sc-25807. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

RESEARCH USE

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

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Try **CD42d (G-11): sc-271662** or **CD42d (CLB-SW16): sc-59053**, our highly recommended monoclonal alternatives to CD42d (H-300).