

Monoclonal Antibody CD41

PN IM0145 – Purified – Freeze-dried – 0.2 mg – Clone P2

For Research Use Only. Not for use in diagnostic procedures.

SPECIFICITY

The CD41 antigen (platelet GPIIb; IIb integrin) is a transmembrane glycoprotein composed of two chains GPIIb α (120 kDa) and GPIIb β (23 kDa) linked by one disulfide bond. CD41 is always non-covalently associated with CD61 (platelet GPIIIa, β 3 integrin), to form the GPIIb-IIIa (CD41/CD61) complex (1). CD41 is expressed by platelets, megakaryocytes and a small subset of CD34+ cells, suggesting that CD41/CD61 is one of the earliest markers of the megakaryocytic lineage. The resting form of the CD41/CD61 complex binds to immobilized fibrinogen and upon platelet activation, the complex becomes a receptor for soluble fibrinogen, fibronectin, vWF, vitronectin and thrombospondin. It is involved in platelet aggregation.

The P2 antibody reacts with the α chain of CD41a (GPIIb α) in the intact complex with GPIIIa but not with the GPIIb or GPIIIa separately. This antibody blocks binding to fibrinogen and inhibits platelet aggregation (2) induced by thrombin, collagen and ADP. The P2 monoclonal antibody (mAb) was used as a CD41 reference antibody during HLDA 6.

The P2 mAb has been assigned to the CD41 cluster of differentiation at the third International Workshop on Human Leucocyte Differentiation Antigens held in Boston, USA, in 1986 (3).

REAGENT

Monoclonal Antibody CD41
PN IM0145 – Purified – Freeze-dried – 0.2 mg

Clone P2
Isotype IgG1 κ , mouse
Immunogen Human platelets
Hybridoma SP2/O-Ag.14 x Balb/c spleen cells
Source Ascites fluid
Purification Ion exchange or affinity chromatography

Buffer 1 mg/mL bovine serum albumin in phosphate-buffered saline

APPLICATION

Studies of CD41 positive cells by flow cytometry.

STATEMENT OF WARNINGS

1. Specimens, samples and all material coming in contact with them should be handled as if capable of transmitting infection and disposed of with proper precautions.
2. Never pipet by mouth and avoid contact of samples with skin and mucous membranes.
3. Do not use antibody beyond the expiration date on the label.
4. Avoid microbial contamination of reagents or incorrect results might occur.
5. Use good laboratory practices when handling this reagent.

STORAGE CONDITIONS AND STABILITY

This freeze-dried form may be stored at 2 – 8°C until the expiration date stated on the vial label.

No preservative has been added.

REAGENT PREPARATION

Depending of usage, reconstitute with 1 mL of distilled water, with or without 0.1% sodium azide (w/v).

The reconstituted form including 0.1% sodium azide may be stored for up to one month at 2 – 8°C.

The reconstituted form without sodium azide can be stored at –20°C or less, until the expiration date stated on the vial label.

In this case, aliquotting is recommended to avoid multiple freezing / thawing cycles.

PROCEDURE

For each application, it is recommended to establish the right range of antibody dilutions to be used for the experiment.

SELECTED RESEARCH REFERENCES

1. Phillips, D.R., Charo, I.F., Parise, L.V., Fitzgerald, L.A., "The platelet membrane glycoprotein IIb-IIIa complex", 1988, *Blood*, 71, 831-843.
2. McGregor, J.L., Brochier, J., Wild, F., Follea, G., Trzeciak, M.C., James, E., Dechavanne, M., McGregor, L., Clemetson, K., "Monoclonal antibodies against platelet membrane glycoproteins", 1983, *Eur. J. Biochem.*, 131, 427-436.
3. Horton, M.A., Hogg, N., "Platelet antigens: new and previously defined clusters", 1987, *Leucocyte Typing III*, McMichael, A.J., et al., Oxford University Press, 733-746.

PRODUCT AVAILABILITY

Monoclonal Antibody CD41
PN IM0145 – Purified – Freeze-dried – 0.2 mg

For additional information in the USA, call 800-526-7694.

Outside the USA, contact your local Beckman Coulter representative.

www.beckmancoulter.com

TRADEMARKS

Beckman Coulter and the Beckman Coulter logo are trademarks of Beckman Coulter, Inc.

Manufactured by:
Immunotech, a Beckman Coulter Company
130, avenue de Lattre de Tassigny, B.P. 177
13276 Marseille Cedex 9, France

©2005 Beckman Coulter, Inc.
All Rights Reserved