EXBIO Antibodies

PRODUCT DATA SHEET

A7-309-T100

Monoclonal Antibody to CD41 Alexa Fluor® 700 conjugated (100 tests)

Clone:	MEM-06
Isotype:	Mouse IgG1
Specificity:	The antibody MEM-06 reacts with CD41 (GPIIb), a transmembrane glycoprotein (integrin family) composed of two chains GPIIb alpha (heavy chain; 120 kDa) and GPIIb beta (light chain; 23 kDa). CD41 is mainly expressed on platelets and megakaryocytes. Workshop: HLDA 10
Regulatory Status:	RUO
Immunogen:	Leukocytes of patient suffering from LGL-type leukaemia.
Species Reactivity:	Human
Preparation:	The purified antibody is conjugated with Alexa Fluor® 700 under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
Storage Buffer:	The reagent is provided in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide.
Storage / Stability:	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.
Usage:	The reagent is designed for Flow Cytometry analysis of human blood cells using 4 µl reagent / 100 µl of whole blood or 10^6 cells in a suspension. The content of a vial (0.4 ml) is sufficient for 100 tests.
Expiration:	See vial label
Lot Number:	See vial label
Background:	CD41 (platelet glycoprotein IIb) is composed of two subunits (120 kDa a, alpha and 23 kDa b, beta) that interact with CD61 in the presence of calcium to form a functional adhesive protein receptor. Upon blood vessel damage, this receptor binds to a variety of proteins including von Willebrand factor, fibrinogen, fibronectin and vitronectin. CD41 is mainly expressed on megakaryocyte-platelet lineage, but generally belongs to the antigens that are expressed during early stages of hematopoietic differentiation.

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References:

*Debili N, Robin C, Schiavon V, Letestu R, Pflumio F, Mitjavila-Garcia MT, Coulombel L, Vainchenker W: Different expression of CD41 on human lymphoid and myeloid progenitors from adults and neonates. Blood. 2001 Apr 1;97(7):2023-30.

*Mitjavila-Garcia MT, Cailleret M, Godin I, Nogueira MM, Cohen-Solal K, Schiavon V, Lecluse Y, Le Pesteur F, Lagrue AH, Vainchenker W: Expression of CD41 on hematopoietic progenitors derived from embryonic hematopoietic cells. Development. 2002 Apr;129(8):2003-13.

*Ferkowicz MJ, Starr M, Xie X, Li W, Johnson SA, Shelley WC, Morrison PR, Yoder MC: CD41 expression defines the onset of primitive and definitive hematopoiesis in the murine embryo. Development. 2003 Sep;130(18):4393-403.

*Zhang J, Varas F, Stadtfeld M, Heck S, Faust N, Graf T: CD41-YFP mice allow in vivo labeling of megakaryocytic cells and reveal a subset of platelets hyperreactive to thrombin stimulation. Exp Hematol. 2007 Mar;35(3):490-499.

*Pagani G, Pereira JPV, Stoldt VR, Beck A, Scharf RE, Gohlke H: The human platelet antigen-1b (Pro33) variant of αIIbβ3 allosterically shifts the dynamic conformational equilibrium of this integrin toward the active state. J Biol Chem. 2018 Mar 30;293(13):4830-4844.

*Belizaire RM, Prakash PS, Richter JR, Robinson BR, Edwards MJ, Caldwell CC, Lentsch AB, Pritts TA: Microparticles from stored red blood cells activate neutrophils and cause lung injury after hemorrhage and resuscitation. J Am Coll Surg. 2012 Apr;214(4):648-55

*Komsa-Penkova R, Todinova SJ, Andreeva TD, Krumova SB, Taneva SG, Golemanov GM, Georgieva GA, Mihaylova NM, Tchorbanov PT: Alterations in platelet activity and elastic modulus of healthy subjects, carriers of G20210A polymorphism in the prothrombin gene. J Biomed Clin Res Volume 9 Number 1, 2016

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