

1P-732-T100

## Monoclonal Antibody to CD42a Phycoerythrin (PE) conjugated (100 tests)

Clone:	GR-P
lsotype:	Mouse IgG1
Specificity:	The mouse monoclonal antibody GR-P (also known as GRP-P) recognizes CD42a (glycoprotein 9), a 22 kDa transmembrane protein constitutively expressed on megakaryocytes and platelets. HLDA IV.; WS Code P 35
Regulatory Status:	RUO
Immunogen:	Human acute lymphoblastic leukemia cells
Species Reactivity:	Human, Canine (Dog)
Preparation:	The purified antibody is conjugated with R-Phycoerythrin (PE) 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 10 $\mu$ l reagent / 100 $\mu$ l of whole blood or 10 <sup>6</sup> cells in a suspension. The content of a vial (1 ml) is sufficient for 100 tests.
Expiration:	See vial label
Lot Number:	See vial label
Background:	CD42a, also known as Glycoprotein 9 (GPIX), composes together with GPIb alpha, GPIb beta and GPV the GPIb-IX-V receptor complex critical in the process of platelet-rich thrombus formation by tethering the platelet to a thrombogenic surface. CD42b binds to von Willebrand factor (VWF) exposed at a site of vascular injury, as well as to thrombin, coagulation factors XI and XII, high molecular wight kininogen, TSP-1, integrin Mac-1 and P-selectin. Defects in the gene encoding CD42a are a cause of Bernard-Soulier syndrome, also known as giant platelet disease. These patients have unusually large platelets and have a clinical bleeding tendency.

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## References:

\*Leukocyte Typing IV., Knapp W. et al. (Eds.), Oxford University Press (1989) \*Harding SA, Din JN, Sarma J, Josephs DH, Fox KA, Newby DE: Promotion of proinflammatory interactions between platelets and monocytes by unfractionated heparin. Heart. 2006 Nov;92(11):1635-8.

\*Brown SB, Clarke MC, Magowan L, Sanderson H, Savill J: Constitutive death of platelets leading to scavenger receptor-mediated phagocytosis. A caspase-independent cell clearance program. J Biol Chem. 2000 Feb 25;275(8):5987-96.

\*Vettore S, Scandellari R, Moro S, Lombardi AM, Scapin M, Randi ML, Fabris F: Novel point mutation in a leucine-rich repeat of the GPIbalpha chain of the platelet von Willebrand factor receptor, GPIb/IX/V, resulting in an inherited dominant form of Bernard-Soulier syndrome affecting two unrelated families: the N41H variant. Haematologica. 2008 Nov;93(11):1743-7.

\*Din JN, Aftab SM, Jubb AW, Carnegy FH, Lyall K, Sarma J, Newby DE, Flapan AD: Effect of moderate walnut consumption on lipid profile, arterial stiffness and platelet activation in humans. Eur J Clin Nutr. 2011 Feb;65(2):234-9.

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