Technical Data Sheet

Purified Mouse Anti-Rat Granulocytes

Product Information

Material Number:	**550000**
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	RP-1
Immunogen:	WKA/Hok rat peritoneal neutrophils
Isotype:	Mouse (BALB/c) IgG2a, κ
Reactivity:	QC Testing: Rat
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The RP-1 antibody reacts with rat peritoneal and peripheral blood neutrophils and bone marrow cells. It does not bind rat macrophages, rat eosinophils, or peritoneal neutrophils from mice, rabbits, guinea pigs, or human peripheral blood as determined by antibody adsorption experiments. Flow cytometric analysis of peripheral blood leukocytes indicates that all granulocytes (cells having high side scatter), but not lymphocytes or monocytes (low side-scatter cells), express that antigen recognized by RP-1 mAb. Expression of the RP-1 antigen on rat peritoneal neutrophils is enhanced by stimulation with PMA or ConA. Immunoprecipitation of rat PMA-activated and non-treated neutrophil membranes with the RP-1 mAb produced two bands of approximately 85 kDa in m.w. However, the RP-1 antigen has not been biochemically characterized.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at 4°C.

Application Notes

Application

Flow cytometry	Routinely Tested
Immunoprecipitation	Reported

Recommended Assay Procedure:
For immunohistochemical staining of granulocytes, we recommend the use of purified HIS48 mAb in our special formulation for immunohistochemistry, Cat. No. 550304. RP-3 mAb (Cat. No. 550055) has been reported to be effective for ***in vitro*** and ***in vivo*** depletion of granulocytes.

Suggested Companion Products

Catalog Number	Name	Size	Clone
553454	Purified Mouse IgG2a κ Isotype Control	0.5 mg	G155-178
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Sodium azide is a reversible inhibitor of oxidative metabolism; therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also affect the results of functional studies, we recommend the NA/LE (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.

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References

Gotoh S, Itoh M, Fujii Y, Arai S, Sendo F. Enhancement of the expression of a rat neutrophil-specific cell surface antigen by activation with phorbol myristate acetate and concanavalin A. *J Immunol.* 1986; 137(2):643-650.(Immunogen: Immunoprecipitation)

Kudo C, Araki A, Matsushima K, Sendo F. Inhibition of IL-8-induced W3/25+ (CD4+) T lymphocyte recruitment into subcutaneous tissues of rats by selective depletion of in vivo neutrophils with a monoclonal antibody. *J Immunol.* 1991; 147(7):2196-2201.(Clone-specific: Immunohistochemistry)

Sekiya S, Gotoh S, Yamashita T, Watanabe T, Saitoh S, Sendo F. Selective depletion of rat neutrophils by in vivo administration of a monoclonal antibody. *J Leukoc Biol.* 1989; 46(2):96-102.(Clone-specific: Immunohistochemistry)