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AM33285PU-N Monoclonal Antibody to Granulocyte - Purified

Quantity: 0.2 mg

Concentration: 0.2 mg/ml

Background: Granulocytes are nucleated white blood cells that have been classified according to the staining behavior of their cytoplasmic granules as neutrophils, eosinophils, or basophils. They are derived from the myeloid precursor series in the bone marrow and have a life span of only a few hours in peripheral blood. They are part of the innate immune system and have somewhat nonspecific, broad-based activity. Eosinophils normally comprises about 3%, basophils comprise about 0.5% and neutrophils comprise about 60-80% of circulating WBCs. Eosinophils have large eosinophilic cytoplasmic granules and are prominent in parasitic infections and allergic reactions. Basophils have large basophilic granules that obscure the nucleus and are involved in type I hypersensitivity reactions. Neutrophils have a multilobate nucleus (for this reason they are also called polymorphonuclear leukocytes) and fine cytoplasmic granules. They participate in the nonspecific acute inflammatory response to injury. They are particularly active against extracellularly multiplying infectious agents, notably bacteria, but are also involved in repair and immune responses.
Until recently, immunological markers for myeloid cells have been lacking, especially those which identify different levels of cellular differentiation. The BM series provides a new panel of monoclonal antibodies which stain early precursor and mature forms of human myeloid cells. This panel of monoclonal antibodies reacts with antigenic determinants present in normal myeloid cells and leukemia's of similar derivation.

Host / Isotype: Mouse / IgG1

Recommended Isotype Controls: SM10P (for use in human samples), AM03095PU-N

Clone: SPM250

Immunogen: Nuclei from pokeweed mitogen stimulated Human peripheral blood lymphocytes.

Format:
State: Liquid purified IgG fraction from Bioreactor Concentrate
Purification: Protein A/G Chromatography
Buffer System: 10mM PBS
Preservatives: 0.05% Sodium Azide
Stabilizers: 0.05% BSA

Applications:
ELISA: Use Antibody without BSA for Coating.
Flow Cytometry: 0.5-1 µg/10^6 cells.
Immunofluorescence: 1-2 µg/ml.
Immunohistochemistry on Frozen and Formalin-Fixed Paraffin Sections: 0.5-1 µg/ml for 30 minutes at RT.
No special pretreatment is required for staining of formalin/paraffin tissues.
Recommended Positive Control: Tonsil or lymph node.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: This antibody recognizes an unidentified antigen in the cytoplasm of mature Granulocytes. It shows no reactivity with any other cell type in Human tissues. Markers of myeloid cells are useful in the identification of different levels of cellular differentiation. It can be used as a granulocyte marker in normal tissues or inflammatory processes.
Cellular Localization: Cytoplasmic.

Species Reactivity: **Tested:** Human and Macaque Monkey.

Storage: Store undiluted at 2-8°C.
DO NOT FREEZE!
Shelf life: one year from despatch.

General Readings:
1. de Swart RL, Ludlow M, de Witte L, Yanagi Y, van Amerongen G, McQuaid S, et al. Predominant infection of CD150+ lymphocytes and dendritic cells during measles virus infection of macaques. PLoS Pathog. 2007 Nov;3(11):e178. PubMed PMID: 18020706.

Pictures: Formalin-Fixed, Paraffin-Embedded tonsil stained with Granulocyte Antibody Cat.-No AM33285PU (Clone SPM250). Note specific cytoplasmic staining.