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Polyclonal Anti-GM-CSF Picoband™ Antibody

Catalog Number: PB9003

Description

Gene Name	colony stimulating factor 2 (granulocyte-macrophage)
Recommended Protein Name	Granulocyte-macrophage colony-stimulating factor
Lot No.	0901412Da320349
Size	100μg/vial
Form	lyophilized
Ig type	Rabbit IgG
Specificity	No cross reactivity with other proteins.
Purification	Immunogen affinity purified.
Species	**Reacts with:** mouse
Immunogen	E.coli-derived mouse GM-CSF recombinant protein (Position: A18-K141). Mouse GM-CSF shares 54% and 70% amino acid (aa) sequence identity with human and rat GM-CSF, respectively.
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na_2HPO_4, 0.05mg NaN_3.

Application

	Concentration	Tested Species	Antigen Retrieval
Western blot	0.1-0.5μg/ml	Ms	-
Immunohistochemistry (Paraffin-embedded Section)	0.5-1μg/ml	Ms	By Heat

WB: The detection limit for GM-CSF is approximately 1ng/lane under reducing conditions.

Tested Species: In-house tested species with positive results.

By Heat: Boiling the paraffin sections in 10mM citrate buffer, pH6.0, for 20mins is required for the staining of formalin/paraffin sections.

Other applications have not been tested.

Optimal dilutions should be determined by end users.

Preparation and storage

Reconstitution: 0.2ml of distilled water will yield a concentration of 500μg/ml.

Storage: At -20˚C for one year. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for a longer time.
Avoid repeated freezing and thawing.

Relevant detection systems

Boster provides a series of assays reacted with primary antibodies. Antibody can be supported by chemiluminescence kit EK1002 in WB, supported by SA1022 in IHC(P).

Background

GM-CSF, Granulocyte-macrophage colony-stimulating factor, is a protein secreted by macrophages, T cells, mast cells, endothelial cells, and fibroblasts. By fluorescence in situ hybridization, the GM-CSF gene is mapped to 5q31.1. GM-CSF is a cytokine that functions as a white blood cell growth factor. GM-CSF stimulates stem cells to produce granulocytes (neutrophils, eosinophils, and basophils) and monocytes. GM-CSF is an essential regulator of neutrophil function.

Reference

1. Le Beau, M. M., Espinosa, R., III, Neuman, W. L., Stock, W., Roulston, D., Larson, R. A., Keinanen, M., Westbrook, C. A.Cytogenetic and molecular delineation of the smallest commonly deleted region of chromosome 5 in malignant myeloid diseases.Proc. Nat. Acad. Sci. 90: 5484-5488, 1993.
2. Park, B. K., Zhang, H., Zeng, Q., Dai, J., Keller, E. T., Giordano, T., Gu, K., Shah, V., Pei, L., Zarbo, R. J., McCauley, L., Shi, S., Chen, S., Wang, C.-Y.NF-kappa-B in breast cancer cells promotes osteolytic bone metastasis by inducing osteoclastogenesis via GM-CSF.Nature Med. 13: 62-69, 2007.
3. Uchida, K., Beck, D. C., Yamamoto, T., Berclaz, P.-Y., Abe, S., Staudt, M. K., Carey, B. C., Filippi, M.-D., Wert, S. E., Denson, L. A., Puchalski, J. T., Hauck, D. M., Trapnell, B. C.GM-CSF autoantibodies and neutrophil dysfunction in pulmonary alveolar proteinosis.New Eng. J. Med. 356: 567-579, 2007.