

Datasheet for ABIN111844
anti-F4/80 antibody (Biotin)



[Go to Product page](#)

3 Publications

Overview

Quantity:	0.1 mg
Target:	F4/80 (EMR1)
Reactivity:	Mouse, Human
Host:	Rat
Clonality:	Monoclonal
Conjugate:	This F4/80 antibody is conjugated to Biotin
Application:	Flow Cytometry (FACS), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Immunogen:	Cultured Macrophages. Remarks: The antigen/epitope is a 125 kDa extracellular membrane protein sensitive to 2-Mercaptoetanol.
Clone:	BM8
Isotype:	IgG2a
Specificity:	This antibody is useful for the detection of major subpopulations of resident tissue macrophages. It is also suitable for the detection of blood monocytes and other monocytic cells isolated from different sources by FACS. This clone is the only macrophage marker that is able to distinguish non-destructive from destructive inflammation processes in the pancreas and has been shown to be a unique histological marker of the progression from peri-insulitis to b-cell destruction and diabetes in a mouse diabetes model. Antigen Distribution Isolated Cells: expressed in vitro on over 80 % of M-CSF stimulated bone marrow derived macrophages, after a few days of culture. It is absent from granulocytes, lymphocytes and thrombocytes. Tissue

Product Details

Sections: The antigen is detected on tissue fixed macrophages in all organs tested so far (spleen, lymph nodes, thymus, liver, skin). It is also present on Langerhans cells in the skin and Kupffer cells in the liver. In complete Freund's adjuvant induced granulomas the antigen is expressed by inflammatory macrophages, but is absent from epitheloid cells.

Cross-Reactivity (Details): Species reactivity (tested): Mouse. Also stains Human Heart Macrophages.

Purification: Affinity Chromatography

Target Details

Target: F4/80 (EMR1)

Alternative Name: Macrophage F4/80 Antigen ([EMR1 Products](#))

Background: F4/80 protein binds to Macrophages from different sites including the peritoneal cavity, lung, spleen and thymus, to blood monocytes and to macrophages derived from bone marrow precursors in culture. F4/80 is not expressed by lymphocytes or polymorphonuclear cells. Synonyms: Cell surface glycoprotein EMR1, EMR1 hormone receptor, Emr1, Gpf480

Gene ID: 13733

NCBI Accession: [NP_034260](#)

UniProt: [Q61549](#)

Application Details

Application Notes: Immunohistochemistry on Frozen Sections: 1.0 µg/mL (1/200). Immunohistochemistry on Paraffin Sections: not tested, but work well with the purified antibody using Proteinase K pretreatment. Recommended Positive Control: Mouse spleen. Has been described to work in FACS.
Other applications not tested.
Optimal dilutions are dependent on conditions and should be determined by the user.

Restrictions: For Research Use only

Handling

Reconstitution: Restore with 0.5 mL distilled water

Concentration: 0.2 mg/mL

Buffer: PBS, pH 7.2, None, 5 mg/mL BSA

Handling

Preservative:	Without preservative
Precaution of Use:	Do Not Use Sodium Azide as Preservative.
Handling Advice:	Avoid repeated freezing and thawing. Dilute only prior to immediate use
Storage:	4 °C/-20 °C
Storage Comment:	Store vial at 2-8 °C prior to restoration. For extended storage add glycerol to 50% and then aliquot contents and freeze at -20 °C or below. Centrifuge product if not completely clear after standing at room temperature. This antibody is stable for one month at 2-8 °C as an undiluted liquid.

Publications

Product cited in:	Stangl, Gehrmann, Riegger, Kuhs, Riederer, Sievert, Hube, Mocikat, Dressel, Kremmer, Pockley, Friedrich, Vigh, Skerra, Multhoff: "Targeting membrane heat-shock protein 70 (Hsp70) on tumors by cmHsp70.1 antibody." in: Proceedings of the National Academy of Sciences of the United States of America, Vol. 108, Issue 2, pp. 733-8, (2011) (PubMed). Kakehashi, Nishioku, Tsukuba, Kadowaki, Nakamura, Yamamoto: "Differential regulation of the nature and functions of dendritic cells and macrophages by cathepsin E." in: Journal of immunology (Baltimore, Md. : 1950), Vol. 179, Issue 9, pp. 5728-37, (2007) (PubMed). Torzewski, Shaw, Han, Shortal, Lackner, Witztum, Palinski, Tsimikas: "Reduced in vivo aortic uptake of radiolabeled oxidation-specific antibodies reflects changes in plaque composition consistent with plaque stabilization." in: Arteriosclerosis, thrombosis, and vascular biology, Vol. 24, Issue 12, pp. 2307-12, (2004) (PubMed).
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