

Monoclonal Antibody to Macrophage F4/80 antigen - FITC

Alternate names: Cell surface glycoprotein EMR1, EMR1 hormone receptor, Emr1, Gpf480

Catalog No.: BM4008F
Quantity: 0.1 mg
Concentration: 0.1 mg/ml

Background: F4/80 is a 160 kD cell surface glycoprotein that is a member of the EGFTM7 family of

proteins which shares 68% overall amino acid identity with human EGF module-containing mucinlike hormone receptor 1 (EMR1). Expression of F4/80 is heterogeneous and is reported to vary during macrophage maturation and activation. The F4/80 antigen is expressed on a wide range of mature tissue macrophages including Kupffer cells,

Langerhans, microglia, macrophages located in the gut lamina propria, peritoneal cavity, lung, thymus, bone marrow stroma and macrophages in the red pulp of the spleen. F4/80 expression has also been reported on a subpopulation of dendritic cells but is absent from macrophages located in T cell areas of the spleen and lymph node. The ligands and

biological functions of the F4/80 antigen have not yet been determined but recent studies

suggest a role for F4/80 in the generation of efferent CD8+ve regulatory T cells.

Uniprot ID: Q61549

NCBI: <u>NP_034260.1</u>

GenelD: <u>13733</u>

Host / Isotype: Rat / IgG2b Clone: CI:A3-1

Immunogen: Thioglycollate stimulated peritoneal cavity macrophages from C57/BL mice.

Spleen cells from immunised HOB2 rats were fused with cells of the mouse NS-1 myeloma

cell line.

Format: State: Liquid purified IgG fraction

Purification: Affinity Chromatography on Protein G

Buffer System: PBS, pH 7.4 containing 0.09% Sodium Azide as preservative and 1% BSA as

stabilizer.

Label: FITC - Fluorescein Isothiocyanate Isomer 1

Applications: Flow Cytometry: Use 10 μl of neat antibody to label 10e6 cells in 100 μl.

Other applications not tested. Optimal dilutions are dependent on conditions and should

be determined by the user.



BM4008F: Monoclonal Antibody to Macrophage F4/80 antigen - FITC

Specificity:

This antibody recognises the F4/80 antigen.

Clone CI:A3-1 has been reported to modulate cytokine levels released in response to Listeria monocytogenes. We recommend the use of BM4008LE for this purpose.

Species: Mouse.

Other species not tested.

Storage:

Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.

This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing. Shelf life: one year from despatch.

General References: 1. Austyn, J.M. and Gordon, S. (1981) F4/80, a monoclonal antibody directed specifically against the mouse macrophage. Eur. J. Immunol. 11: 805-815.

> 2. Hume, D.A. et al. (1984) The mononuclear phagocyte system of the mouse defined by immunohistochemical localization of antigen F4/80: Macrophages associated with epithelia. The Anatomical Record 210: 503-512.

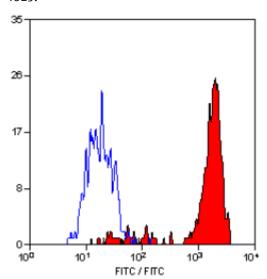
3. Lee, S.H. et al. (1985) Quantitative analysis of total macrophage content in adult mouse tissues. Immunochemical studies with monoclonal antibody F4/80. J. Exp. Med. 161: 475-489.

4. Gordon, S. et al. (1992) Antigen markers of macrophage differentitation in murine tissues. Curr. Top. Microbiol. Immunol. 181: 1-37.

5. Warschkau, H. and Kiderlen, A.F. (1999) A monoclonal antibody directed against the murine macrophage surface molecule F4/80 modulates natural immune response to Listeria monocytogenes. J. Immunol.163:3409 - 3416.

6. His-Hsien, L. et al. (2005) The macrophage F4/80 receptor is required for the induction of antigen-specific efferent regulatory T cells in peripheral tolerance. J. Exp. Med. 201:1615 -1625.

Pictures:



Staining of mouse peritoneal macrophages with Rat Anti Mouse F4/80 Antigen-FITC