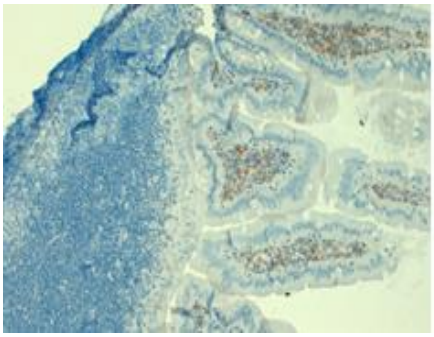
CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	Macrophages F4/80, Mouse, clone BM8		
Catalog number	HM1066-20UG		
Lot number	-	**Expiry date**	-
Volume	200 µl	**Amount**	20 µg
Formulation	0.2 µm filtered in PBS+0.1%BSA+0.02%NaN3	**Concentration**	100 µg/ml
Host Species	Rat IgG2a	**Conjugate**	None
Endotoxin	N.A.	**Purification**	Protein G
Storage	4°C		

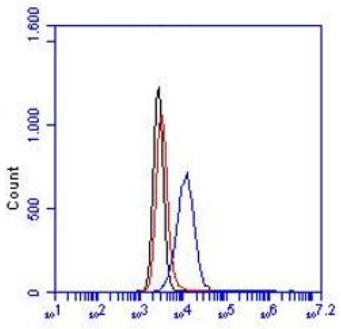
Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #	1,4	3		1,2				1
Yes	●	●		●				●
No								
N.D.			●		●	●	●	

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot



IHC-P: paraffin embedded sections of mouse colon. HM1066 was used in a concentration of 2 µg/ml.



FC: detection of F4/80 in RAW cells. Red, black and blue line represent the isotype control, cells only and HM1066 with a concentration of 10 µg/ml, respectively.

Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.

- W: Mouse bone-marrow derived macrophages; non-reduced; ~125 kDa (Ref 1); reduction with 2-mercaptoethanol destroys BM8 antigen.
- IHC-F: tissue embedded in OCT Tissue Tec; fixed with acetone for 10 min at RT; incubation with 0.02 M sodium azide in PBS containing 0.1 % H2O2 for 10 min at RT to destroy endogenous peroxidase; spleen as positive control.
- IHC-P: fixation in 10% neutral buffered formalin for 24 h; blocking with non-immunized goat serum; microwaved for 6 min in citrate buffer; splenic macrophages as positive control (Ref 3).
- FC: fixed with 1 % paraformaldehyde (Ref 1).
- Positive control: Mouse macrophages; Negative control: Mouse fibroblasts or granulocytes.

General Information

Description

The monoclonal antibody BM8 recognizes a 125 kDa extracellular macrophage membrane molecule, highly restricted to mature macrophage subpopulations residing in tissue. This murine F4/80 glycoprotein contains seven-transmembrane (TM7) regions, which anchor the protein in the cell membrane, and thereby shows similarity in this region to G-protein-coupled receptors. The F4/80 molecule shares overall structural homology to other members of the epidermal growth factor (EGF)-TM7 family. 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. It is absent on granulocytes, lymphocytes and thrombocytes. The expression of F4/80 increases upon maturation of macrophage precursors in bone marrow and blood as well as in ontogeny.

The monoclonal antibody BM8 is the only macrophage marker that is able to distinguish non-destructive from destructive inflammation processes in the pancreas. Furthermore it is a unique histological marker of the progression from peri-insulitis to beta-cell destruction and diabetes in a mouse diabetes model.

Immunogen BALB/c macrophages obtained from 14-day-old bone marrow cell cultures

Cross reactivity Mouse granulocytes: No; Mouse mast cells: No; Mouse platelets: No; Mouse lymphocytes: No; Mouse fibroblasts: No; Mouse endothelial cells: No.

References

1. Malorny, U et al; A monoclonal antibody against an antigen present on mouse macrophages and absent from monocytes. Cell Tissue Res 1986, *243*: 421
2. Leenen, P et al; Markers of mouse macrophage development detected by monoclonal antibodies. J Immunol Methods 1994, *174*: 5
3. Mackler, A et al; Macrophage trafficking in the uterus and cervix precedes parturition in the mouse. Biol Reprod 1999, *61*: 879
4. Schaller, E et al; Inactivation of the F4/80 glycoprotein in the mouse germ line. Mol Cell Biol 2002, *22*: 8035

Storage&stability Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.

Precautions For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC	Date
Brenda Teunissen	28/10/2020

Do you have any questions or comments regarding this product? Please contact us via support@hycultbiotech.com.