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Datasheet for 600-401-MP2

CD68 Antibody

Overview

Description:	Anti-CD68 (RABBIT) Antibody - 600-401-MP2
Item No.:	600-401-MP2
Size:	100 µg
Applications:	ELISA, WB, IHC, Other
Reactivity:	Mouse
Host Species:	Rabbit

Product Details

Background:	CD68, cluster of differentiation, is a 110-kD transmembrane glycoprotein that is highly expressed by monocytes and tissue macrophages. CD68 is a member of a family of hematopoietic mucin-like molecules that includes leukosialin/CD43 and stem cell antigen CD34. Immunohistochemistry can be used to identify the presence of CD68, which is found in the cytoplasmic granules of a range of different blood cells. It is particularly useful as a marker for the various cells of the macrophage lineage, including monocytes, histiocytes, giant cells, Kupffer cells, and osteoclasts. This allows it to be used to distinguish diseases of otherwise similar appearance, such as the monocyte/macrophage and lymphoid forms of leukemia (the latter being CD68 negative). Its presence in macrophages also makes it useful in diagnosing conditions related to proliferation or abnormality of these cells, such as malignant histiocytosis, histiocytic lymphoma, and Gaucher's disease. Anti-Cd68 antibody is suitable for researchers interested in cancer research and the immune system.
Synonyms:	Rabbit Anti-CD68 Antibody, Rabbit Anti-Macrosialin Antibody, Gp110, CD68, CD68 Molecule, CD68 Antigen, Scavenger Receptor Class D Member, Macrophage Antigen CD68, SCARD1, LAMP4, Macrosialin
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	CD68

Reactivity:	Mouse
Immunogen Type:	Conjugated Peptide
Immunogen:	CD68 affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to a near C-terminal region of mouse CD68.
Purity/Specificity:	Anti-CD68 Antibody is directed against mouse CD68 protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest reactivity with this protein from mouse based on 100% homology for the immunogen sequence. Cross reactivity with Cd68 from other sources has not been determined.
Relevant Links:	• UniProtKB - P31996 • NCBI - NP_001277987.1 • GeneID - 12514

Application Details

Tested Applications:	ELISA, WB
Suggested Applications:	IHC, Other (Based on references)
Application Note:	Anti-CD68 Antibody has been tested in ELISA and Western Blot. Expect a band at ~34.8Da in western blot using appropriate tissues and lysates. Positive control used: mouse heart and kidney in WB.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000-1:50,000
WB:	1:1000

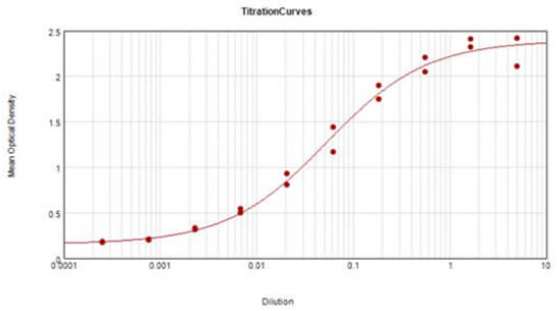
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.02 mg/ml by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

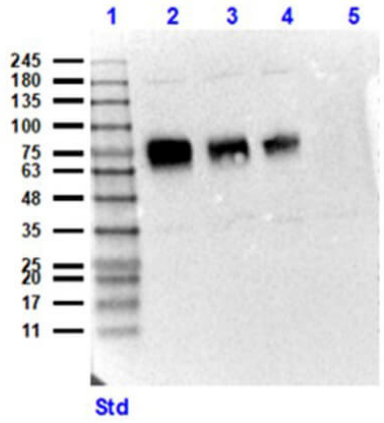
Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

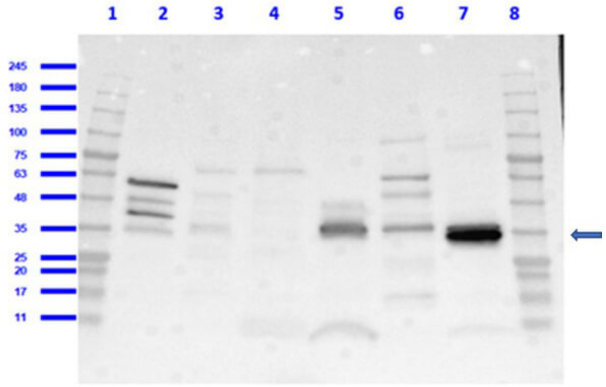
Images



ELISA
ELISA results of purified Rabbit Anti-CD68 Antibody tested against BSA-conjugated CD68 immunizing peptide. Each well was coated in duplicate with 0.1µg of conjugate. The starting dilution of antibody was 5µg/ml and the X-axis represents the Log10 of a 3-fold dilution. This titration is a 4-parameter curve fit where the IC50 is defined as the titer of the antibody. Assay performed using ELISA Microwell Blocking Buffer (p/n MB-064-1000), Goat Anti-Rabbit IgG HRP conjugated (p/n 611-103-122), and TMBE-1000.



Western Blot
Western Blot of Rabbit Anti-CD68 Antibody. Lane 1: Opal Prestained Molecular Weight Marker (p/n MB-210-0500). Lane 2: HeLa + Rec. CD68 (Baculo expressed) protein (10µg/0.05µg) [+]. Lane 3: HeLa + Rec. CD68 (Baculo expressed) protein (10µg/0.02µg) [+]. Lane 4: HeLa + Rec. CD68 (Baculo expressed) protein (10µg/0.01µg) [+]. Lane 5: HeLa whole cell lysate (p/n W09-000-364) (10µg) [-]. Primary Antibody: Anti-CD68 at 1:1000 overnight at 2-8°C. Secondary Antibody: Goat Anti-Rabbit IgG HRP (p/n 611-103-122) at 1:70,000 for 60 mins at RT. Block: BlockOut Buffer (p/n MB-073). Expected MW: ~60-70kDa recombinant CD68. Observed MW: ~75kDa.



Western Blot
Western Blot of Rabbit Anti-CD68 Antibody. Lane 1: Opal Prestained Molecular Weight Marker (p/n MB-210-0500). Lane 2: Mouse Liver tissue lysate (p/n W10-000-T020) [+]. Lane 3: Mouse Lung tissue lysate (p/n W10-000-MQ1) [+]. Lane 4: Mouse Spleen tissue lysate (p/n W10-000-T029) [+]. Lane 5: Mouse Heart tissue lysate (p/n W10-000-T014) [low]. Lane 6: Mouse Testis tissue lysate (p/n W10-000-GZ2) [low]. Lane 7: Mouse Kidney tissue lysate (p/n W10-000-T017) [low]. Lane 8: Opal Prestained Molecular Weight Marker (p/n MB-210-0500). Primary Antibody: Anti-CD68 at 1:1000 overnight at 2-8°C. Secondary Antibody: Goat Anti-Rabbit IgG HRP (p/n 611-103-122) at 1:70,000 for 60 mins at RT. Block: BlockOut Buffer (p/n MB-073). Expected MW: ~34kDa with glycosylations. Observed MW: ~34kDa.

References

- Abuelezz SA et al. Targeting oxidative stress, cytokines and serotonin interactions via indoleamine 2, 3 dioxygenase by coenzyme Q10: role in suppressing depressive like behavior in rats. *J Neuroimmune Pharmacol.* (2017)

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