Order online now!

www.rockland.com
tech@rockland.com
+1 484.791.3823

Datasheet for 600-401-R10

Cd68 Antibody

Overview

Description:	Anti-CD68 (RABBIT) Antibody - 600-401-R10
Item No.:	600-401-R10
Size:	100 µg
Applications:	FC, IF, IHC, WB, Other
Reactivity:	Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	CD68, cluster of differentiation, is a 110-kD transmembrane glycoprotein that is highly expressed by human 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. The CD68 gene is mapped to 17p13.1. 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 leukaemia (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. This antibody is suitable for researchers interested in cancer research.
Synonyms:	Macrosialin, Gp110, CD68
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	Cd68
Reactivity:	Mouse, Rat

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 an internal region of mouse CD68.
Purity/Specificity:	Anti-CD68 antibody is directed against mouse CD68 protein supplied in the buffer above with 4mg trehalose. The product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest reactivity with this protein from mouse and rat based on homology for the immunogen sequence. Cross reactivity with CD68 from other sources has not been determined.
Relevant Links:	• UniProtKB - P31996

Application Details

Tested Applications:	FC, IF, IHC, WB
Suggested Applications:	Other (Based on references)
Application Note:	Anti-CD68 is tested for IHC-P, IHC-Fr, IF, Flow Cytometry, and Western Blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately ~34.8 kDa corresponding to the appropriate cell lysate or extract.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
FC:	1-3µg/1 million cells
IF:	5µg/mL
IHC:	0.5-1.0µg/mL
WB:	0.1-0.5µg/mL

Formulation

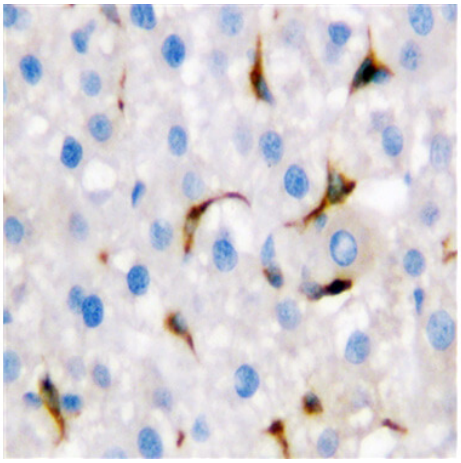
Physical State:	Lyophilized
Concentration:	0.5 mg/mL by UV absorbance at 280 nm
Stabilizer:	4mg Trehalose
Reconstitution Volume:	200µL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

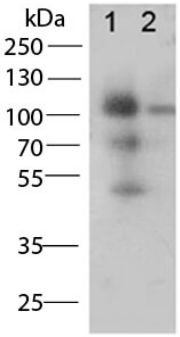
Shipping Condition:	Ambient

Storage Condition:	Store vial at -20° C prior to opening. Each vial contains 4mg Trehalose, 0.9mg NaCl, and 0.2mg Na2HPO4. 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



Immunohistochemistry
Immunohistochemistry of Rabbit anti-CD68 antibody. Tissue: rat liver tissue. Fixation: formalin fixed paraffin embedded. Primary antibody: CD68 antibody 10 µg/mL for 1 h at RT. Secondary antibody: Anti-rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: CD68 is an endosome and lysosome single-pass type I membrane protein. Staining: CD-68 as precipitated red signal with hematoxylin purple nuclear counterstain.



Western Blot
Western Blot of Rabbit Anti-CD68 antibody. Lane 1: Rat Spleen Tissue Lysate. Lane 2: Rat Lung Tissue Lysate. Load: 35 µg per lane. Primary antibody: CD68 antibody at 1 ug/ml for overnight at 4°C. Secondary antibody: rabbit secondary antibody at 1:10,000 for 1.5 hr at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: ~34 kDa/105kDa for CD-68.

References

- Fraczek PM et al. Vitamin A retinoic acid contributes to muscle stem cell and mitochondrial function loss in old age. *JCI Insight.* (2025)
- Wang H et al. ESRRG-controlled downregulation of KCNN1 in primary sensory neurons is required for neuropathic pain. *JCI Insight.* (2024)
- Adrian M et al. Polarized microtubule remodeling transforms the morphology of reactive microglia and drives cytokine release. *Nat Commun.* (2023)
- 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)

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.