abcam

ab48589

Anti-CD66b antibody [GM-2H6]

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	Standard buffer
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Fragment Protein within Human CEACAM8. The exact immunogen used to generate this antibody is proprietary information. Database link P31997
Clone number	GM-2H6
Purification technique	Affinity purification Protein G
Specificity	This antibody exclusively recognizes CD66b (CEACAM8).
Concentration	2 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	The antibody was purified from cell culture supernatants.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	-

Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Target data

See full target information CEACAM8

Function	Cell surface glycoprotein that plays a role in cell adhesion in a calcium-independent manner (PubMed:11590190, PubMed:2022629, PubMed:8776764). Mediates heterophilic cell adhesion with other carcinoembryonic antigen-related cell adhesion molecules, such as CEACAM6 (PubMed:11590190, PubMed:2022629, PubMed:8776764). Heterophilic interaction with CEACAM8 occurs in activated neutrophils (PubMed:8776764).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	CD66b also known as carcinoembryonic antigen-related cell adhesion molecule 8 (CEACAM8) is a glycoprotein with a molecular weight around 95 kDa. It is primarily expressed on the surface of granulocytes specifically on neutrophils—its expression on these cells makes it a useful marker in distinguishing stages of granulocyte maturation. The protein localizes to the cell membrane and serves as a cell adhesion molecule playing roles in intercellular interactions. Researchers often use CD66b-specific antibodies such as CD66b FITC for detecting and analyzing neutrophil populations commonly in flow cytometry applications.
Biological function summary	CD66b contributes to immune responses by facilitating leukocyte activation and migration during inflammation. It does not form part of a multi-protein complex but interacts with other cellular components. CD66b promotes neutrophil adhesion and transmigration to sites of infection or injury supporting their role in innate immunity. Additionally it participates in signaling pathways that influence cell survival proliferation and apoptosis in response to environmental cues.
Pathways	CD66b operates within neutrophil-related processes like the immune response and cell adhesion pathways. In the immune response pathway it collaborates with integrins to assist neutrophil extravasation through the endothelium. During inflammatory responses CD66b interaction with integrins and other adhesion

molecules influences the intensity and duration of activity at inflammation sites. This interaction highlights its involvement with proteins such as ICAM-1 in mediating firm adhesion necessary for neutrophil migration.

Associated diseases and disorders

CD66b levels and activity correlate with conditions involving inflammation such as chronic obstructive pulmonary disease (COPD) and rheumatoid arthritis. During COPD the altered expression and regulation of CD66b contribute to neutrophil-driven inflammation exacerbating disease symptoms. Similarly rheumatoid arthritis involves inflammatory pathways where aberrant CD66b activity enhances synovial inflammation often linked with other inflammatory markers like TNF-alpha. Understanding CD66b's role in such diseases aids the development of therapeutic strategies targeting neutrophil-mediated pathology.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

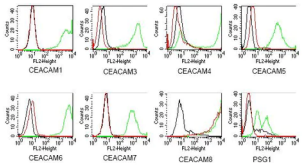
We do not recommend this combination. It is not covered by our product promise.

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1 product image



Flow Cytometry - Anti-CD66b antibody [GM-2H6] (ab48589)

ab48589, staining CD66b (CEACAM8) by Flow Cytometry.
BOSC23 cells were transiently transfected with expression vectors containing either the cDNA of CEACAM1, CEACAM3-8 or PSG. The latter was expressed as a membrane bound fusion protein. Expression of the constructs was tested with monoclonal antibodies known to recognize the

corresponding proteins (CEACAM1, 3, 4, 5 and 6: D14HD11; CEACAM7: BAC2; CEACAM8: Tet2; PSG: BAP3; green curves). An irrelevant monoclonal antibody served as a negative control (black curves). For specificity testing, ab48589 was tested on all CEACAM transfectants. A positive signal was obtained only with CEACAM8 (CD66b) transfected cells (red curve).

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