

Alexa Fluor® 647 anti-human CD66b Antibody

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|--------------------------|--|
| Catalog# / Size | 305109 / 25 tests 305110 / 100 tests |
| Clone | G10F5 |
| Regulatory Status | RUO |
| Workshop | VI MA81 |
| Other Names | CD67, CGM6, NCA-95, CEACAM8 |
| Isotype | Mouse IgM, κ |
| Description | CD66b is a 95-100 kD glycosylphosphatidylinositol (GPI)-linked protein also known as CD67, CGM6, and NCA-95. CD66b is a member of the immunoglobulin superfamily, carcinoembryonic antigen (CEA)-like subfamily. CD66b, expressed on granulocytes, has been reported to induce activation in neutrophils and to be involved in heterophilic adhesion with CD66c. |

Product Details

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|---------------------------------|---|
| Verified Reactivity | Human |
| Reported Reactivity | Chimpanzee |
| Antibody Type | Monoclonal |
| Host Species | Mouse |
| Formulation | Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA) |
| Preparation | The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 647 under optimal conditions. |
| Concentration | Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.) |
| Storage & Handling | The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze. |
| Application | FC - Quality tested IHC-P - Verified SB - Reported in the literature, not verified in house |
| Recommended Usage | Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood. For immunohistochemical staining on formalin-fixed paraffin-embedded tissue sections, the suggested use of this reagent is 5.0 - 10 µg per ml. It is recommended that the reagent be titrated for optimal performance for each application. * Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633 nm / 635 nm. Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation. View full statement regarding label licenses |
| Excitation Laser | Red Laser (633 nm) |
| Application Notes | Additional reported applications (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen, formalin-fixed paraffin-embedded tissue sections, and spatial biology (IBEX) ^{5,6} . |
| Additional Product Notes | Iterative Bleaching Extended multi-plexity (IBEX) is a fluorescent imaging technique capable of highly-multiplexed spatial analysis. The method relies on cyclical bleaching of panels of fluorescent antibodies in order to image and analyze many markers over multiple cycles of staining, imaging, and, bleaching. It is a community-developed open-access method developed by the Center for Advanced Tissue Imaging (CAT-I) in the National Institute of Allergy and Infectious Diseases (NIAID), |

NIH).

Application References

(PubMed link indicates BioLegend citation)

1. Schlossman S, *et al.* Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.
2. Kishimoto T, *et al.* Eds. 1997. Leucocyte Typing VI. Garland Publishing Inc. London.
3. Norling LV, *et al.* 2012. *Arterioscler Thromb Vasc Biol.* 32:1970. [PubMed](#)
4. Meinke P, *et al.* 2015. *Neuroimmunol Discord.* 25:127. [PubMed](#)
5. Radtke AJ, *et al.* 2020. *Proc Natl Acad Sci USA.* 117:33455-33465. (SB) [PubMed](#)
6. Radtke AJ, *et al.* 2022. *Nat Protoc.* 17:378-401. (SB) [PubMed](#)

Product Citations

1. Blanco-Camarillo C, *et al.* 2021. *Front Immunol.* 12:672520. [PubMed](#)

RRID

AB_2563170 (BioLegend Cat. No. 305109)
AB_2563171 (BioLegend Cat. No. 305110)

Antigen Details

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|---------------------------|---|
| Structure | Ig superfamily, CEA antigen group, GPI-linked glycoprotein, 95-100 kD |
| Distribution | Granulocytes |
| Function | Cell adhesion, neutrophil activation |
| Ligand/Receptor | CD66c |
| Cell Type | Granulocytes, Neutrophils |
| Biology Area | Immunology |
| Molecular Family | Adhesion Molecules, CD Molecules |
| Antigen References | 1. Kuijpers T, <i>et al.</i> 1993. <i>J. Immunol.</i> 151:4934. 2. Kuroki M, <i>et al.</i> 1992. <i>J. Leuk. Biol.</i> 52:551. |
| Gene ID | 1088 |

Related Protocols

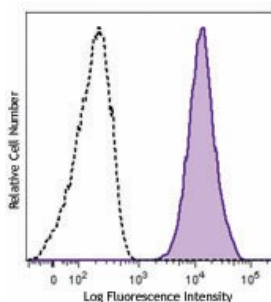
[Cell Surface Flow Cytometry Staining Protocol](#)

[Immunohistochemistry Protocol for Paraffin-Embedded Sections](#)

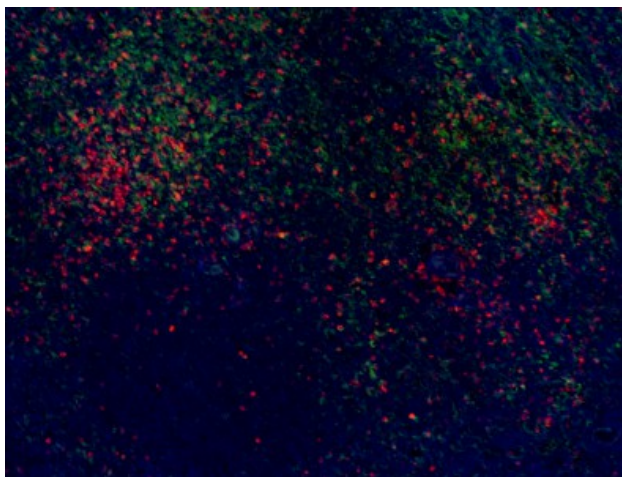
Other Formats

FITC anti-human CD66b, Purified anti-human CD66b, Pacific Blue™ anti-human CD66b, PE anti-human CD66b, PerCP/Cyanine5.5 anti-human CD66b, Alexa Fluor® 647 anti-human CD66b, Alexa Fluor® 700 anti-human CD66b, PE/Cyanine7 anti-human CD66b, APC anti-human CD66b, Biotin anti-human CD66b, PE/Dazzle™ 594 anti-human CD66b, Alexa Fluor® 594 anti-human CD66b, APC/Cyanine7 anti-human CD66b, GMP FITC anti-human CD66b

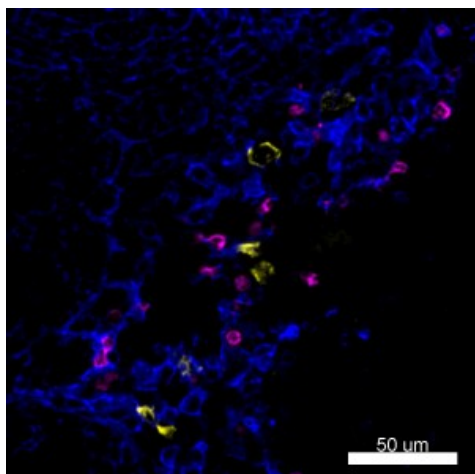
Product Data



Human peripheral blood granulocytes were stained with CD66b (clone G10F5) Alexa Fluor® 647 (filled histogram) or mouse IgM, κ Alexa Fluor® 647 isotype control (open histogram).



Human paraffin-embedded spleen tissue was stained with Alexa Fluor® 647 anti-human CD66b antibody (red) and co-stained with Alexa Fluor® 594 anti-human CD8a antibody (green).



Confocal image of human lymph node sample acquired using the IBEX method of highly multiplexed antibody-based imaging: CD35 (blue) in Cycle 6, CD117 (yellow) in Cycle 6, and CD66b (magenta) in Cycle 11. Tissues were prepared using ~1% (vol/vol) formaldehyde and a detergent. Following fixation, samples are immersed in 30% (wt/vol) sucrose for cryoprotection. Images are courtesy of Drs. Andrea J. Radtke and Ronald N. Germain of the Center for Advanced Tissue Imaging (CAT-I) in the National Institute of Allergy and Infectious Diseases (NIAID, NIH).

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