

CD48 Monoclonal Antibody (HM48-1), NovaFluor™ Blue 660-120S, eBioscience™

Product Details	
Size	25 µg
Species Reactivity	Mouse
Host/Isotype	Armenian hamster / IgG
Class	Monoclonal
Type	Antibody
Clone	HM48-1
Conjugate	NovaFluor™ Blue 660-120S
Excitation/Emission Max	492/665 nm
Form	Liquid
Concentration	0.1 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.2 µg/test	-

Product Specific Information

Description: The HM48-1 monoclonal antibody reacts with the mouse CD48 antigen; also known as BCM1, Blast-1 (human), and OX-45 (rat). CD48, a member of the SLAM family and Ig superfamily, is a 45 kDa GPI-linked glycoprotein expressed on the majority of hematopoietic cells. Recent publications have reported differential expression of members of the SLAM family including CD48, CD150, and CD244 among functionally distinct bone marrow hematopoietic progenitors providing a useful tool for prediction of the primitiveness of hematopoietic progenitors based on the expression of these SLAM family members. Hematopoietic stem cells (HSC) are highly purified as CD150(+)CD244(-)CD48(-) cells while non-self-renewing multipotent hematopoietic progenitors (MPP) are CD244(+)CD150(-)CD48(-) and the most restricted progenitors are CD48(+)CD244(+)CD150(-). CD48 plays a critical role in adhesion and T cell activation. In the mouse, the primary counter-receptors for CD48 are CD2 and CD244. HM48-1 is reported to modulate in vitro and in vivo CD48 functions including blocking the CD48/CD2 and CD48/CD244 interactions, inhibiting the proliferative response of mitogen-activated spleen cells, providing a costimulation signal for T cells activated in vitro through their TCR, and prolonging cardiac allograft survival in vivo.

Each product contains 1 vial of NovaFluor conjugate and 1 vial of CellBlox Plus Blocking Buffer .

Applications Reported: This HM48-1 antibody has been reported for use in flow cytometric analysis.

Applications Tested: This HM48-1 antibody has been tested by flow cytometric analysis of mouse splenocytes. This can be used at less than or equal to 0.125 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

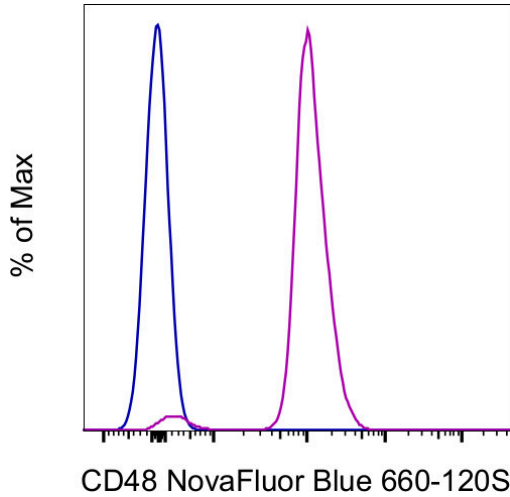
NovaFluor dyes are not compatible with DNA intercalating viability dyes. Do not use viability dyes such as propidium iodide, 7-actinomycin D (7-AAD) and DAPI. Invitrogen LIVE/DEAD Fixable Dead Cell stains are recommended for use with NovaFluor dyes.

This NovaFluor conjugate has been updated to ship with CellBlox Plus Blocking Buffer (Cat. No. (C001T06F01)). This buffer contains formulation improvements over CellBlox. CellBlox Plus Blocking Buffer is required for optimal staining with NovaFluor conjugates and should be used in all experiments where NovaFluor conjugates are used. Whenever possible, we recommend adding CellBlox Plus Blocking Buffer to antibody cocktails/master mixes prior to combining with cells. Add 5 µL per sample (regardless of the number of NovaFluors in your panel) to use the antibody cocktail as intended. For single-color controls, use 5 µL of CellBlox Blocking Buffer per 100 µL of cell sample containing 10³ to 10⁸ cells.

NovaFluor conjugates are based on Phiton™ technology utilizing novel nucleic acid dye structures that allow for engineered fluorescent signatures with consideration for spillover and spread impacts. Learn more

Excitation: 509 nm; Emission: 665 nm; Laser: 488 nm (Blue) Laser

Product Images For CD48 Monoclonal Antibody (HM48-1), NovaFluor™ Blue 660-120S, eBioscience™



CD48 Antibody (M031T02B08-A) in Flow
C57BL/6 mouse splenocytes were either left unstained (blue histogram) or stained with 0.2 µg of CD48 Monoclonal Antibody, NovaFluor Blue 660-120S (purple histogram). Total viable cells in the lymphocyte gate were used for analysis, as determined by LIVE/DEAD Blue (Product # L34962). Data was acquired on a 5-laser Cytex Aurora and unmixed with autofluorescence extraction.

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