

# CD38 Monoclonal Antibody (90), eFluor™ 450, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Published Species	Mouse
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), eFluor™ 450, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	90
Conjugate	eFluor™ 450
Excitation/Emission Max	405/445 nm
Form	Liquid
Concentration	0.2 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!
RRID	AB_11218302

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.5 µg/test	14 Publications

## Product Specific Information

**Description:** The 90 monoclonal antibody reacts with the mouse CD38 molecule, an ~42 kDa type II transmembrane protein. CD38 is expressed at increasingly higher levels on B cells at each stage of B-cell differentiation, and is then down-regulated on germinal center B cells and mature plasma cells. Its expression is reported on a subpopulation of thymocytes, mature T cells, and NK cells. Crosslinking of CD38 on the surface of mature, resting B cells induces B-cell proliferation, which is enhanced by co-signals such as IL-4 and LPS. CD38, a counter-receptor for CD31, is an ectoenzyme with cyclase and hydrolase enzymatic activity and is speculated to play a role in lymphocyte activation and differentiation.

**Applications Reported:** This 90 antibody has been reported for use in flow cytometric analysis.

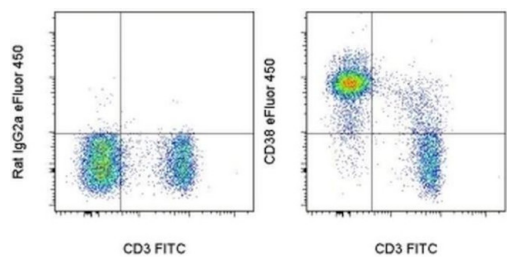
**Applications Tested:** This 90 antibody has been tested by flow cytometric analysis of mouse splenocytes. This can be used at less than or equal to 0.5 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

eFluor® 450 is an alternative to Pacific Blue®. eFluor® 450 emits at 445 nm and is excited with the Violet laser (405 nm). Please make sure that your instrument is capable of detecting this fluorochrome.

**Excitation:** 405 nm; **Emission:** 445 nm; **Laser:** Violet Laser.

**Filtration:** 0.2 µm post-manufacturing filtered.

Product Images For CD38 Monoclonal Antibody (90), eFluor™ 450, eBioscience™



**CD38 Antibody (48-0381-82) in Flow**  
Staining of BALB/c splenocytes with Anti-Mouse CD3e FITC (Product # 11-0031-82) and 0.25 µg of Rat IgG2a K Isotype Control eFluor® 450 (Product # 48-4321-82) (left) or 0.25 µg of Anti-Mouse CD38 eFluor® 450 (right). Total viable cells were used for analysis.

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14 References

Flow Cytometry (14)

<b>Aging cell</b>		<b>Year</b> 2022
<b>B cell-intrinsic changes with age do not impact antibody-secreting cell formation but delay B cell participation in the germinal centre reaction.</b>		<b>Species</b> Mouse
"48-0381-82 was used in Flow cytometry/Cell sorting to show that B cells from aged individuals are not intrinsically defective in responding to stimulation and becoming antibody-secreting cells, implicating B cell-extrinsic factors as the primary cause of age-associated impairment in the humoral immunity."		<b>Dilution</b> 1:200
Authors: Lee JL,Fra-Bido SC,Burton AR,Innocentin S,Hill DL,Linterman MA		
<b>Vaccines</b>		<b>Year</b> 2021
<b>Alphavirus-Driven Interferon Gamma (IFNγ) Expression Inhibits Tumor Growth in Orthotopic 4T1 Breast Cancer Model.</b>		
"Published figure using CD38 monoclonal antibody (Product # 48-0381-82) in Flow Cytometry"		
Authors: Trofimova O,Korotkaja K,Skrastina D,Jansons J,Spunde K,Isaguliants M,Zajakina A		

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