

CD223 (LAG-3) Monoclonal Antibody (eBioC9B7W (C9B7W)), Functional Grade, eBioscience™

Product Details	
Size	500 µg
Species Reactivity	Mouse
Published Species	Mouse
Host/Isotype	Rat / IgG1, kappa
Recommended Isotype Control	Rat IgG1 kappa Isotype Control (eBRG1), Functional Grade, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	eBioC9B7W (C9B7W)
Conjugate	Functional Grade
Form	Liquid
Concentration	1 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	no preservative
Storage conditions	4° C
RRID	AB_494126

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.5 µg/test	20 Publications
ELISA (ELISA)	Assay-Dependent	-
Immunoprecipitation (IP)	Assay-Dependent	-
Neutralization (Neu)	Assay-Dependent	1 Publication
Functional Assay (FN)	Assay-Dependent	-

Product Specific Information

Description: The eBioC9B7W monoclonal antibody recognizes mouse CD223 (LAG-3, LAG3) protein expressed by activated alpha/beta-TCR bearing T cells, a subset of gamma/delta-TCR bearing T cells and a subset of NK cells. CD223 is a 70 kDa type I transmembrane protein with a structure that is similar to CD4. However, a soluble form of human CD223 has been detected by ELISA in human serum, and data suggest that mouse CD223 is proteolytically cleaved in the D4 domain. This results in a 54 kDa fragment containing all the extracellular domains, and a 16 kDa fragment containing the intracellular and transmembrane domains. The 54 kDa can remain membrane-associated or be released as soluble CD223.

CD223 binds to MHC class II with higher affinity than CD4, and it is thought that this interaction is involved in the negative regulation of T-cell activation and homeostatic proliferation. Furthermore, CD223 is expressed by CD4+CD25+ regulatory T cells, and it has been suggested that CD223 may be involved in their regulatory function.

Applications Reported: This eBioC9B7W (C9B7W) antibody has been reported for use in flow cytometric analysis, immunoprecipitation, and ELISA. The functional grade eBioC9B7W has been reported for the in vitro and in vivo blocking of CD223 function.

Applications Tested: This eBioC9B7W (C9B7W) antibody has been tested by flow cytometric analysis of anti-CD3 and anti-CD28-activated 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 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Storage and handling: Use in a sterile environment.

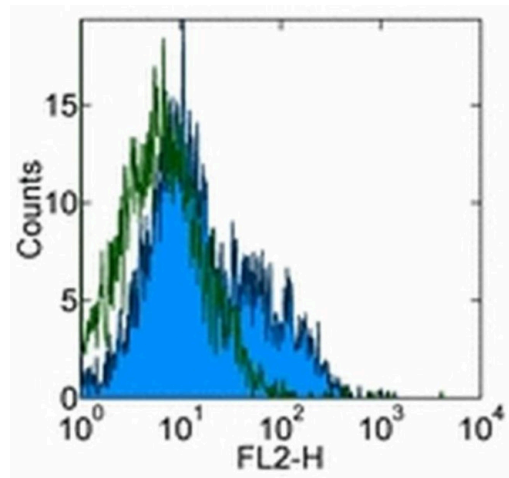
Filtration: 0.2 µm post-manufacturing filtered.

Purity: Greater than 90%, as determined by SDS-PAGE.

Endotoxin Level: Less than 0.001 ng/µg antibody, as determined by LAL assay.

Aggregation: Less than 10%, as determined by HPLC.

Product Images For CD223 (LAG-3) Monoclonal Antibody (eBioC9B7W (C9B7W)), Functional Grade, eBioscience™



CD223 (LAG-3) Antibody (16-2231-85) in Flow
Staining of 3-day Anti-Mouse CD3 and anti-CD28-stimulated C57Bl/6 splenocytes with 0.25 µg of Rat IgG1 Isotype Control Purified (Product # 14-4301-82) (open histogram) or 0.25 µg of Anti-Mouse CD223 (LAG-3) Purified (filled histogram) followed by Anti-Rat IgG Biotin (Product # 13-4813-85) and Streptavidin PE (Product # 12-4317-87). Total viable cells were used for analysis.

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Flow Cytometry (20)

<p>Journal for immunotherapy of cancer</p> <p>BRCA1 deficiency in mature CD8⁺ T lymphocytes impairs antitumor immunity.</p> <p>"Published figure using CD223 (LAG-3) monoclonal antibody (Product # 16-2231-85) in Flow Cytometry"</p> <p>Authors: Wu B, Qi L, Chiang HC, Pan H, Zhang X, Greenbaum A, Stark E, Wang LJ, Chen Y, Haddad BR, Clagett D, Isaacs C, Elledge R, Horvath A, Hu Y, Li R</p>	<p>Year</p> <p>2023</p>
<p>Nature communications</p> <p>Breast cancer cell-derived extracellular vesicles promote CD8⁺T cell exhaustion via TGF- type II receptor signaling.</p> <p>"Published figure using CD223 (LAG-3) monoclonal antibody (Product # 16-2231-85) in Flow Cytometry"</p> <p>Authors: Xie F, Zhou X, Su P, Li H, Tu Y, Du J, Pan C, Wei X, Zheng M, Jin K, Miao L, Wang C, Meng X, van Dam H, Ten Dijke P, Zhang L, Zhou F</p>	<p>Year</p> <p>2022</p>

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Neutralization (1)

<p>Journal of leukocyte biology</p> <p>CD70 expression by dendritic cells plays a critical role in the immunogenicity of CD40-independent, CD4⁺ T cell-dependent, licensed CD8⁺ T cell responses.</p> <p>"16-2231 was used in Blocking experiments to explain the capacity of CD40-deficient mice to mount CD8(+) T cell responses, which may provide targets for immunotherapy."</p> <p>Authors: Van Deusen KE, Rajapakse R, Bullock TN</p>	<p>Year</p> <p>2010</p> <p>Species</p> <p>Mouse</p>
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