

# CD3 Monoclonal Antibody (eBioG4.18 (G4.18)), Functional Grade, eBioscience™

Product Details	
Size	500 µg
Species Reactivity	Rat
Published Species	Rat, Mouse
Host/Isotype	Mouse / IgG3, kappa
Class	Monoclonal
Type	Antibody
Clone	eBioG4.18 (G4.18)
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_468845

Applications	Tested Dilution	Publications
Immunohistochemistry (IHC)	Assay-Dependent	1 Publication
Flow Cytometry (Flow)	0.5 µg/test	6 Publications
Functional Assay (FN)	Assay-Dependent	3 Publications
T-Cell Activation (TCA)	-	1 Publication

## Product Specific Information

**Description:** The eBioG4.18 monoclonal antibody recognizes the rat CD3 protein. CD3 is a critical component of the T-cell receptor (TCR) and is a marker of the T-cell lineage. CD3 is a complex of several subunits and, upon binding of a TCR ligand, participates in transduction of signals from the TCR to the nucleus which results in a variety of cellular responses including transcription of IL-2 and clonal expansion. in vitro, immobilized G4.18 monoclonal antibody has been demonstrated to activate T cells, while soluble G4.18 inhibited allogeneic mixed-lymphocyte proliferative responses and cell-mediated cytotoxicity to allogeneic target cells. in vivo, G4.18 was demonstrated to induce long-term specific tolerance to an organ allograft.

**Applications Reported:** This eBioG4.18 (G4.18) antibody has been reported for use in flow cytometric analysis, immunoblotting (WB), and immunohistochemical staining. The eBioG4.18 antibody has also been used in functional assays.

**Applications Tested:** This eBioG4.18 (G4.18) antibody has been tested by flow cytometric analysis of rat 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.

**Storage and handling:** Use in a sterile environment.

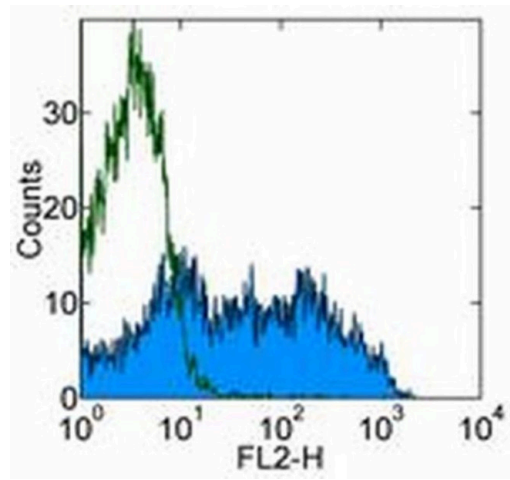
**Filtration:** 0.2 µm post-manufacturing filtered.

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 CD3 Monoclonal Antibody (eBioG4.18 (G4.18)), Functional Grade, eBioscience™**



**CD3 Antibody (16-0030-85) in Flow**  
Staining of rat splenocytes with 0.25 μg of Mouse IgG3 Isotype Control Purified (Product # 14-4742-82) (open histogram) or 0.25 μg of Anti-Rat CD3 Functional Grade Purified (filled histogram) followed by Anti-Mouse IgG Biotin (Product # 13-4013-85) and Streptavidin PE (Product # 12-4317-87). Cells in the lymphocyte gate were used for analysis.

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## Immunohistochemistry (1)

<p>PloS one</p> <p><b>Molecular pathology of murine ureteritis causing obstructive uropathy with hydronephrosis.</b></p> <p>"Published figure using CD3 monoclonal antibody (Product # 16-0030-85) in Immunohistochemistry"</p> <p>Authors: Ichii O,Otsuka S,Namiki Y,Hashimoto Y,Kon Y</p>	<p>Year</p> <p>2012</p>
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## Flow Cytometry (6)

<p>Journal of inflammation research</p> <p><b>Qing-Luo-Yin Alleviated Experimental Arthritis in Rats by Disrupting Immune Feedback Between Inflammatory T Cells and Monocytes: Key Evidences from Its Effects on Immune Cell Phenotypes.</b></p> <p>"Published figure using CD3 monoclonal antibody (Product # 16-0030-85) in Flow Cytometry"</p> <p>Authors: Wang DD,Wu XY,Dong JY,Cheng XP,Gu SF,Olatunji OJ,Li Y,Zuo J</p>	<p>Year</p> <p>2022</p>
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<p>Frontiers in immunology</p> <p><b>Disruption of Tfh:B Cell Interactions Prevents Antibody-Mediated Rejection in a Kidney Transplant Model in Rats: Impact of Calcineurin Inhibitor Dose.</b></p> <p>"Published figure using CD3 monoclonal antibody (Product # 16-0030-85) in Flow Cytometry"</p> <p>Authors: Steines L,Poth H,Schuster A,Amann K,Banas B,Bergler T</p>	<p>Year</p> <p>2021</p>
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## Functional Assay (3)

<p>Frontiers in immunology</p> <p><b>M1 Macrophage Derived Exosomes Aggravate Experimental Autoimmune Neuritis via Modulating Th1 Response.</b></p> <p>"16-0030 was used in a functional assay to determine the effects of macrophage derived exosomes on the development of EAN in Lewis rats."</p> <p>Authors: Du T,Yang CL,Ge MR,Liu Y,Zhang P,Li H,Li XL,Li T,Liu YD,Dou YC,Yang B,Duan RS</p>	<p>Year</p> <p>2021</p> <p>Species</p> <p>Rat</p>
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## More applications with references on thermofisher.cn

### TCA (1)

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