Rat IgG1 kappa Isotype Control (eBRG1), Biotin, eBioscience™

Product Details	
Size	100 µg
Host/Isotype	Rat / IgG1, kappa
Class	Monoclonal
Type	Isotype Control
Clone	eBRG1
Conjugate	Biotin
Form	Liquid
Concentration	0.5 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_470081

Applications	Tested Dilution	Publications
Immunohistochemistry (Paraffin) (IHC (P))	10 µg/mL	-
Immunocytochemistry (ICC/IF)	Assay-Dependent	-
Flow Cytometry (Flow)	Assay-Dependent	0 Publication
Control (Ctrl)	Assay-Dependent	0 Publication

Product Specific Information

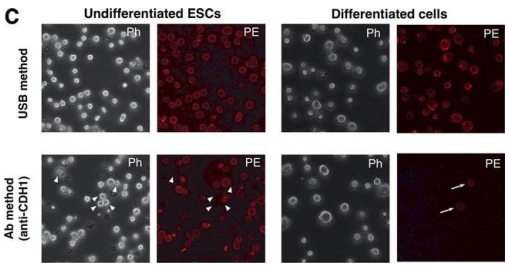
Description: The monoclonal rat IgG1, kappa is useful as an isotype control immunoglobulin.

Applications Reported: This rat IgG1 isotype control can be used in immunohistochemistry, immunocytochemistry, flow cytometric analysis, and ELISA.

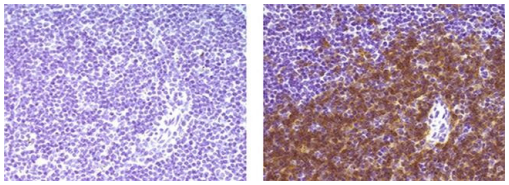
Applications Tested: This rat IgG1 isotype control has been used by flow cytometric analysis of mouse splenocyte suspension and can be used at the same concentration as the experimental antibody.

Filtration: 0.2 µm post-manufacturing filtered.

Product Images For Rat IgG1 kappa Isotype Control (eBRG1), Biotin, eBioscience™



Rat IgG1 kappa Isotype Control (13-4301-82) in Ctrl
Principle of USB method and comparison of USB and Ab labelling methods. (A) Principle of the USB and Ab methods (top). In the USB method, cell surface proteins (represented by small rectangles on the cell) are universally biotinylated with S-NHS-biotin and treated with hashtag DNA-tagged streptavidin. In the Ab method, cells are treated with biotin-conjugated antibody against specific cell surface protein (small rectangles on the cell) followed by the hashtag DNA-tagged streptavidin. If the specific protein is not expressed on some cells, those cells are not labelled by the Ab method (bottom right), whereas the USB method can label all the cells (bottom left). (B) Efficiency of cell labelling examined by flow cytometry. The USB labelling is highly efficient, with 99.6% of undifferentiated (top left) and 96.4% of differentiated cells (top right) being PE positive. In contrast, using the Ab method, 87.8% of undifferentiated cells (bottom left) and 9.9% of differentiated cells (bottom right) were PE positive. (C) Cell labelling by the USB method (top panel) and the Ab method (bottom panel) confirmed by fluorescence microscopy. In this case, the Ab method uses an antibody against mouse CDH1. CDH1 is known to be expressed in the undifferentiated ES cells, while the expression is limited to some cells in differentiated states. (Left) Undifferentiated ES cells; (right) differentiated cells (12 days after induction of differentiati… Image collected and cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/35652718), licensed under a CC BY license.



Rat IgG1 kappa Isotype Control (13-4301-82) in IHC (P)
Immunohistochemistry of formalin-fixed paraffin embedded mouse spleen using 10 µg/mL of Rat IgG1 K Isotype Control Biotin (left) or 10 µg/mL of Anti-Mouse CD4 Biotin (right) followed by Streptavidin HRP and DAB visualization. Nuclei are counterstained with hematoxylin.

5 References

Universal Surface Biotinylation: a simple, versatile and cost-effective sample multiplexing method for single-cell RNA-seq analysis. DNA Res (2022)

A sustained type I IFN-neutrophil-IL-18 axis drives pathology during mucosal viral infection. Elife (2021)

Spleen plays a major role in DLL4-driven acute T-cell lymphoblastic leukemia. Theranostics (2021)

The Ser/Thr kinase MAP4K4 drives c-Met-induced motility and invasiveness in a cell-based model of SHH medulloblastoma. Springerplus (2015)

In vitro multilineage differentiation and self-renewal of single pancreatic colony-forming cells from adult C57BL/6 mice. Stem Cells Dev (2014)

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