IRF7 Monoclonal Antibody (MNGPKL), PE, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), PE, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	MNGPKL
Conjugate	PE
Excitation/Emission Max	565/576 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_2572629

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.25 µg/test	3 Publications

Product Specific Information

Description: The monoclonal antibody MNGPKL reacts with mouse interferon regulatory factor 7 (IRF7), a 54 kDa transcription factor essential for induction of the antiviral innate immune response and IFN alpha production. B cells, plasmacytoid dendritic cells (pDC), and monocytes constitutively express IRF7 in the cytoplasm until activation by viral infection, double-stranded RNA or Toll-like receptor (TLR) signaling. CpG ODNs and single-stranded RNA, recognized by CD289 (TLR9) and TLR7, respectively, trigger IRF7 activation and upregulation. This activation promotes type I IFN response to disrupt pathogen and viral infection. These events causeIRF7 phosphorylation and translocation to the nucleus where it forms a homodimer to affect transcription.

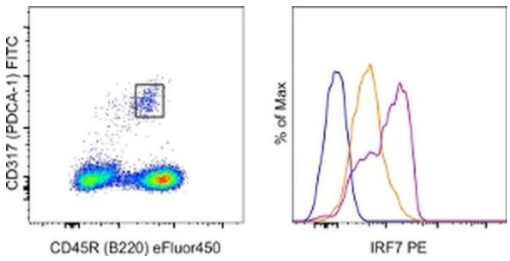
Applications Reported: This MNGPKL antibody has been reported for use in intracellular staining followed by flow cytometric analysis.

Applications Tested: This MNGPKL antibody has been tested by intracellular staining and flow cytometric analysis of stimulated mouse splenocytes using the Intracellular Fixation & Permeabilization Buffer Set (Product # 88-8824-00) and protocol. Please refer to Best Protocols: Protocol A: Two step protocol for (cytoplasmic) intracellular proteins located under the Resources Tab online. This can be used at less than or equal to 0.25 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 10^5 to 10^8 cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Excitation: 488-561 nm; Emission: 578 nm; Laser: Blue Laser, Green Laser, Yellow-Green Laser.

Filtration: 0.2 µm post-manufacturing filtered.

Product Images For IRF7 Monoclonal Antibody (MNGPKL), PE, eBioscience™



IRF7 Antibody (12-5829-82) in Flow
Mouse splenocytes were untreated (right, orange histogram) or treated with CpG ODN 2395 (right, purple histogram) for 5 hours. Using the Intracellular Fixation & Permeabilization Buffer Set (Product # 88-8824-00) and protocol, the cells were then intracellularly stained with Anti-Mouse CD317 (BST2, PDCA-1) FITC (Product # 11-3172-82), Anti-Human/Mouse CD45R (B220) eFluor® 450 (Product # 48-0452-82), and 0.125 µg of Rat IgG2a K Isotype Control PE (Product # 12-4321-80) (right, blue histogram) or 0.125 µg of Anti-Mouse IRF7 PE. Viable CD317+CD45R+ cells (left), as determined by Fixable Viability Dye eFluor® 506 (Product # 65-0863-14), were used for analysis.

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3 References

Flow Cytometry (3)

DNA research : an international journal for rapid publication of reports on genes and genomes

Year
2023

Characterization of proteogenomic signatures of differentiation of CD4+ T cell subsets.

"Published figure using IRF7 monoclonal antibody (Product # 12-5829-82) in Flow Cytometry"

Authors: Kanno T,Konno R,Miyako K,Nakajima T,Yokoyama S,Sasamoto S,Asou HK,Ohzeki J,Kawashima Y, Hasegawa Y,Ohara O,Endo Y

Frontiers in immunology

Year
2022

SCD2-mediated cooperative activation of IRF3-IRF9 regulatory circuit controls type I interferon transcriptome in CD4^{+} T cells.

"Published figure using IRF7 monoclonal antibody (Product # 12-5829-82) in Flow Cytometry"

Authors: Kanno T,Miyako K,Nakajima T,Yokoyama S,Sasamoto S,Asou HK,Ohara O,Nakayama T,Endo Y

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