

CD218a (IL-18Ra) Monoclonal Antibody (P3TUNYA), PE, 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), PE, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	P3TUNYA
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_2572617

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.125 µg/test	5 Publications

Product Specific Information

Description: This P3TUNYA monoclonal antibody reacts with mouse CD218a (Interleukin 18 Receptor alpha). CD218a is one of the subunits of the heterodimeric receptor complex for the IL-18 cytokine. IL-18 is a proinflammatory cytokine and member of the IL-1 family first identified by its role in IFN gamma secretion during toxic shock. Like the other members of the family, it is synthesized as an inactive precursor which requires cleavage by caspases prior to secretion of the active form. It is secreted by activated monocytes, macrophages, epithelial cells, and keratinocytes via a non-classical pathway.

IL-18 Receptor is expressed on Th1, but not naive CD4 T cells or Th2, as well as subsets of NK cells and neutrophils. The heterodimeric receptor is made up of a ligand-binding alpha chain and signal-transducing beta chain. On its own, IL-18Ra binds IL-18 with low affinity, although the affinity of this interaction increases upon forming a complex with IL-18Rb. IL-18R signaling plays a critical role in Th1 differentiation and effector function, and results in the increased expression of IFN gamma, TNF alpha, and Fas ligand from T cells and NK cells. IL-18 has also been found to synergize with IL-23 in the development and function of Th17 cells. Recently, a subset of CD8 T cells has been discovered that co-secretes IFN gamma with IL-17A and sometimes IL-22. These Tc17 cells share key transcription factors, chemokine receptors, and cytokine receptors with Th17 cells. In humans, this population has been identified by expression of CD161 and IL-18R. As a CD161 homolog has yet to be identified in mice, it has been suggested that IL-18R may be used as a surrogate for CD161 in mouse Tc17 phenotyping.

Applications Reported: This P3TUNYA antibody has been reported for use in flow cytometric analysis.

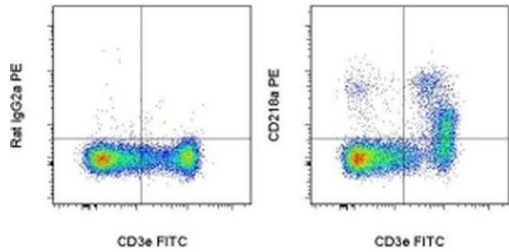
Applications Tested: This P3TUNYA antibody has been tested by flow cytometric analysis of mouse splenocytes. This can be

used at less than or equal to 0.125 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.

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 CD218a (IL-18Ra) Monoclonal Antibody (P3TUNYA), PE, eBioscience™



CD218a (IL-18Ra) Antibody (12-5183-82) in Flow
Staining of BALB/c splenocytes with Anti-Mouse CD3e FITC (Product # 11-0031-82) and 0.06 µg of Rat IgG2a K Isotype Control PE (Product # 12-4321-80) (left) or 0.06 µg of Anti-Mouse CD218a (IL-18 Receptor alpha) PE (right). Cells in the lymphocyte gate were used for analysis.

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5 References

Flow Cytometry (5)

<p>Nature communications</p> <p>IL-22 initiates an IL-18-dependent epithelial response circuit to enforce intestinal host defence.</p> <p>"12-5183-82 was used in Flow Cytometry to conclude that IL-18 in return regulates Stat3-mediated anti-microbial response in Paneth cells, Akt-Tcf4-triggered expansion of Lgr5+ stem cells to facilitate tissue repair, and AIEC clearance by promoting IFN+ T cells."</p> <p>Authors: Chiang HY,Lu HH,Sudhakar JN,Chen YW,Shih NS,Weng YT,Shui JW</p>	<p>Year 2022</p> <p>Species Mouse</p> <p>Dilution 1:200</p>
<p>Frontiers in immunology</p> <p>Expansion of an Unusual Virtual Memory CD8⁺ Subpopulation Bearing V3.2 TCR in Themis-Deficient Mice.</p> <p>"Published figure using CD218a (IL-18Ra) monoclonal antibody (Product # 12-5183-82) in Flow Cytometry"</p> <p>Authors: Prasad M,Wojciech L,Brzostek J,Hu J,Chua YL,Tung DWH,Yap J,Rybakin V,Gascoigne NRJ</p>	<p>Year 2021</p>

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