

MERTK Monoclonal Antibody (DS5MMER), PE, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Published Species	Mouse, Human
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), PE, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	DS5MMER
Conjugate	PE
Excitation/Emission Max	565/576 nm
Immunogen	Fc-tagged full protein expressed in insect cells
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_2572623

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	1 µg/test	7 Publications

Product Specific Information

Description: This DS5MMER monoclonal antibody recognizes mouse MerTK, a 170-210 kDa member of the TAM family of tyrosine kinase receptors that also includes Axl and Tyro3. MerTK is expressed on tissue macrophages and is involved in the removal of apoptotic cells. This process relies on two soluble ligands of MerTK, Protein S and Gas6 that bind to phosphatidylserine found on the outer leaflet of the plasma membrane of cells undergoing apoptosis. Upon binding these ligands, MerTK undergoes autophosphorylation at multiple tyrosine residues that activate the PI3K and Akt pathways. This results in the phagocytosis of apoptotic cells and also results in the direct inhibition of TLR-induced production of pro-inflammatory cytokines. In addition MerTK may function as a putative entry receptor for filoviruses. Deficiency of MerTK causes general autoimmunity, inflammation and accumulation of apoptotic bodies. MerTK is constitutively released from the cell surface by metalloproteinases and thus is present in the serum and culture medium. This process can be enhanced by stimulation with LPS. MerTK can be used to help discriminate macrophages from dendritic cells. MerTK is often expressed on malignant cells and may be implicated in immune evasion.

The DS5MMER antibody will work on paraformaldehyde-fixed cells.

Applications Reported: This DS5MMER antibody has been reported for use in flow cytometric analysis.

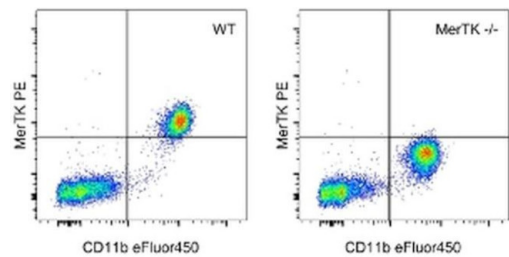
Applications Tested: This DS5MMER antibody has been tested by flow cytometric analysis of mouse resident peritoneal exudate cells. This can be used at less than or equal to 1 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell 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 MERTK Monoclonal Antibody (DS5MMER), PE, eBioscience™



MERTK Antibody (12-5751-82) in Flow
Resident peritoneal exudate cells from either C57Bl/6 wild type (left) or MerTK knock-out (right) mice were incubated with Anti-Mouse CD16/CD32 Purified (Product # 14-0161-82) to block Fc receptors, then stained with Anti-Mouse CD11b eFluor® 450 (Product # 48-0112-82) and 0.5 µg of Anti-Mouse MerTK PE. Total cells were used for analysis. Data courtesy of Dr. Anna Zagorska, Lemke lab, Salk Institute.

View more figures on thermofisher.cn

7 References

Flow Cytometry (7)

Cell death & disease	Year 2021
Ligand-dependent kinase activity of MERTK drives efferocytosis in human iPSC-derived macrophages.	Species Mouse
"12-5751-82 was used in Flow Cytometry to elucidate the role of MERTK in dysregulation of efferocytosis in human and murine models."	
Authors: Wanke F,Gutbier S,Rümmelin A,Steinberg M,Hughes LD,Koenen M,Komuczki J,Regan-Komito D,Wagage S,Hesselmann J,Thoma R,Brugger D,Christopeit T,Wang H,Point F,Hallet R,Ghosh S,Rothlin CV,Patsch C,Geering B	
Frontiers in immunology	Year 2019
Protective Role of the MER Tyrosine Kinase via Efferocytosis in Rheumatoid Arthritis Models.	Species Mouse
"Published figure using MERTK monoclonal antibody (Product # 12-5751-82) in Flow Cytometry"	
Authors: Waterborg CEJ,Beermann S,Broeren MGA,Bennink MB,Koenders MI,van Lent PLEM,van den Berg WB,van der Kraan PM,van de Loo FAJ	

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