

MERTK Monoclonal Antibody (DS5MMER), APC-eFluor™ 780, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), APC-eFluor™ 780, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	DS5MMER
Conjugate	APC-eFluor™ 780
Excitation/Emission Max	756/785 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_2848373

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.5 µg/test	4 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 resident peritoneal macrophages. This may 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 10⁴ to

10^8 cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

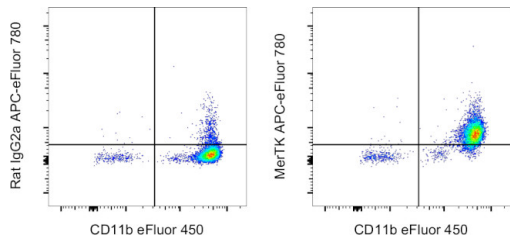
APC-eFluor 780 emits at 780 nm and is excited with the Red laser (633-647 nm). Please make sure that your instrument is capable of detecting this fluorochrome.

Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222-49) (100 µL of cell sample + 100 µL of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333-57) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 633-647 nm; Emission: 780 nm; Laser: Red Laser.

Product Images For MERTK Monoclonal Antibody (DS5MMER), APC-eFluor™ 780, eBioscience™



MERTK Antibody (47-5751-82) in Flow
C57BL/6 mouse resident peritoneal macrophages were stained with CD11b Monoclonal Antibody, eFluor 450 (Product # 48-0112-82) and 0.25 µg of Rat IgG2a kappa Isotype Control, APC-eFluor 780 (Product # 47-4321-82) (left) or 0.25 µg of MerTK Monoclonal Antibody, APC-eFluor 780 (right). Cells in the monocyte gate were used for analysis.

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4 References

Flow Cytometry (4)

Cell death & disease	Year 2021
Ligand-dependent kinase activity of MERTK drives efferocytosis in human iPSC-derived macrophages.	
"Published figure using MERTK monoclonal antibody (Product # 47-5751-82) in Flow Cytometry"	
Authors: Wanke F, Gutbier S, Rummelin A, Steinberg M, Hughes LD, Koenen M, Komuczki J, Regan-Komito D, Wagage S, Hesselmann J, Thoma R, Brugger D, Christopheit 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.	
"Published figure using MERTK monoclonal antibody (Product # 47-5751-82) 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	

View more Flow references on thermofisher.com

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