

# MERTK Monoclonal Antibody (DS5MMER), Brilliant Ultra Violet™ 737, eBioscience™

Product Details	
Size	25 µg
Species Reactivity	Mouse
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), Brilliant Ultra Violet™ 737, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	DS5MMER
Conjugate	Brilliant Ultra Violet™ 737
Excitation/Emission Max	350/740 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, with BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2896019

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	1.0 µg/test	-

## 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 cells. This may be used at less than or equal to 1.0 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<sup>5</sup> to 10<sup>8</sup> cells/test. It

is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Brilliant Ultra Violet™ 737 (BUV737) is a tandem dye that emits at 732 nm and is intended for use on cytometers equipped with an ultraviolet (355 nm) laser. Please make sure that your instrument is capable of detecting this fluorochrome.

When using two or more Super Bright, Brilliant Violet™, Brilliant Ultra Violet™, or other polymer dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright Complete Staining Buffer (Product # SB-4401) or Brilliant Stain Buffer (Product # 00-4409-75) to minimize any non-specific polymer interactions. Please refer to the datasheet for Super Bright Staining Buffer or Brilliant Stain Buffer for more information.

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

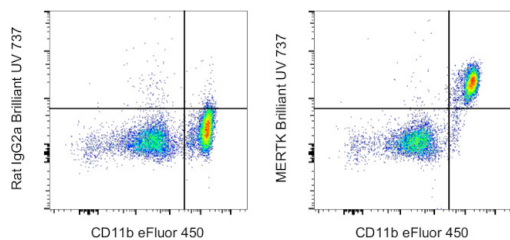
Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222) (100 µL of cell sample + 100 µL of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations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

Our internal testing suggests that Brilliant Ultra Violet™ 737 (BUV737) is compatible with short-term methanol-based fixation, but should not be stored in buffers containing methanol for longer than one hour.

Excitation: 355 nm; Emission: 732 nm; Laser: Ultraviolet Laser.

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## Product Images For MERTK Monoclonal Antibody (DS5MMER), Brilliant Ultra Violet™ 737, eBioscience™



### MERTK Antibody (367-5751-80) in Flow

C57BL/6 mouse resident peritoneal macrophages were stained with CD11b Monoclonal Antibody, eFluor 450 (Product # 48-0112-82) and 0.5 µg of Rat IgG2a kappa Isotype Control, Brilliant Ultra Violet 737 (BUV737) (Product # 367-4321-81) (left) or 0.5 µg of MERTK Monoclonal Antibody, Brilliant Ultra Violet 737 (BUV737) (right). Total viable cells were used for analysis, as determined by 7-AAD (Product # 00-6993-50).

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