SONY

Product Data Sheet

PE/Dazzle™ 594 anti-mouse MERTK (Mer)

Catalog # / Size: 1357615 / 25 µg
1357620 / 100 µg

Clone: 2B10C42

Isotype: Rat IgG2a, κ

Immunogen: Mouse MERTK extracellular domain

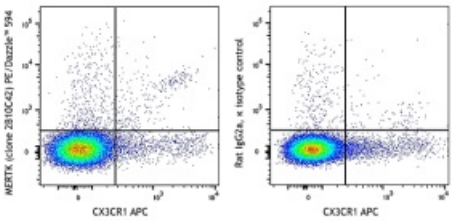
Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography and conjugated with PE/Dazzle™ 594 under optimal conditions.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide

Workshop Number: IV N906

Concentration: 0.2



C57BL/6 mouse splenocytes were stained with CX3CR1 APC and MERTK (Mer) (clone 2B10C42) PE/Dazzle™ 594 (left) or rat IgG2a, κ PE/Dazzle™ 594 isotype control (right).

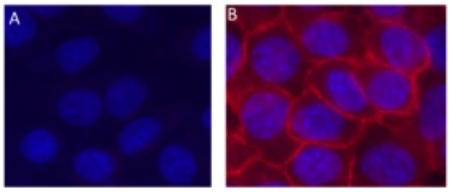
Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤ 0.5 µg per million cells in 100 µL volume. It is recommended that the reagent be titrated for optimal performance for each application.

* PE/Dazzle™ 594 has a maximum excitation of 566 nm and a maximum emission of 610 nm.

Application Notes: Additional reported applications (for relevant formats of this clone) include: inhibition of CD45 functions[2], immunohistochemical staining of frozen tissue sections[3] and formalin-fixed paraffin-embedded tissue sections[4], and immunocytochemistry[15,16].



A-431 cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with ice-cold methanol for 10 minutes, and blocked with 5% FBS for 60 minutes. Cells were then intracellularly stained with 5.0 µg/mL (1:100 dilution) of either Purified Mouse IgG1, κ Isotype Ctrl Antibody (Cat. No. 2607010, panel A) or purified anti-EGFR antibody (panel B) for two hours at room temperature, followed by incubation with Alexa Fluor® 594 Goat anti-mouse IgG Antibody at 2.0 µg/mL. Nuclei were counterstained with DAPI, and the image was captured with a 60X objective.

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Application References:

1. Knapp W, *et al.* 1989. Leucocyte Typing IV. Oxford University Press. New York.
2. Yamada T, *et al.* 2002. *J. Biol. Chem.* 277:28830. (WB, Block)
3. Weninger W, *et al.* 2003 *J. Immunol.* 170:4638. (IHC-F)
4. Imanguli MM, *et al.* 2009. *Blood*. 113:3620 (IHC-P)
5. Roque S, *et al.* 2007. *J. Immunol.* 178:8028. (FC) PubMed
6. Smeltz RB. 2007. *J. Immunol.* 178:4786. (FC) PubMed
7. Palendira U, *et al.* 2008. *Blood* (FC) PubMed
8. Kuttruff S, *et al.* 2009. *Blood* 113:358. (FC) PubMed
9. Thakral D, *et al.* 2008. *J. Immunol.* 180:7431. (FC) PubMed
10. Alanio C, *et al.* 2010. *Blood* 115:3718. (FC) PubMed
11. Iannello A, *et al.* 2010. *J. Immunol.* 184:114. (FC) PubMed
12. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
13. Guereau-de-Arellan M, *et al.* 2011. *Brain*. 134:3578. PubMed
14. Canque B, *et al.* 2000. *Blood* 96:3748. (ICC)
15. Imanguli MM, *et al.* 2009. *Blood* 13:3620. (ICC)
16. Stoeckius M, et al. 2017. Nat. Methods. 14:865. (PG)
17. Peterson VM, et al. 2017. Nat. Biotechnol. 35:936. (PG)

Description: MerTK (Mer) is a member of the TAM (TYRO3/AXL/MerTK) family. It is a transmembrane protein with two fibronectin type-III domains, two Ig-like C2-type domains, and one tyrosine kinase domain. MerTK is mainly expressed by macrophages, monocytes, and dendritic cells. Its ligands are LGALS3, TUB, TULP1, and GAS6. MerTK is involved in the regulation of TLR signaling, efferocytosis, phagocytosis, cell survival, macrophage migration, and the inhibition of inflammation.

Antigen References:

1. Zagorska A, *et al.* 2014. *Nat. Immunol.* 15:920.
2. Toda S, *et al.* 2014. *Blood* 123:3963.
3. Chung WS, *et al.* 2013. *Nature* 504:394.
4. Carrera Silva EA, *et al.* 2013. *Immunity* 39:160.
5. Yi Z, *et al.* 2009. *Blood* 114:3191.

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