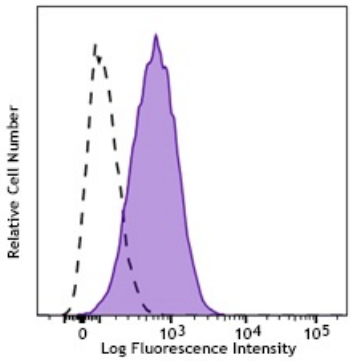
SONY

Product Data Sheet

Brilliant Violet 711™ anti-human MERTK

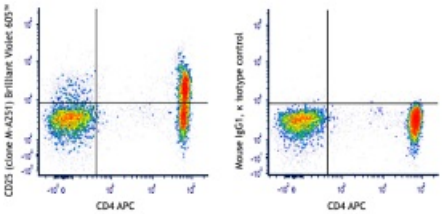
Catalog # / Size:	2438100 / 100 tests 2438095 / 25 tests
Clone:	590H11G1E3
Isotype:	Mouse IgG1, κ
Immunogen:	MERTK extracellular domain/Fc fusion.
Reactivity:	Human
Preparation:	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 711™ under optimal conditions.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).
Workshop Number:	HCDM listed
Concentration:	Lot-specific



Human peripheral blood monocytes were stimulated and cultured with M-CSF (7 days) and then stained with human MERTK (clone 590H11G1E3) Brilliant Violet 711™ (filled histogram), or mouse IgG1, κ Brilliant Violet 711™ isotype control (open histogram). Data shown is gated on the total CD11b positive population.

Applications:

Applications: Flow Cytometry



Human peripheral blood lymphocytes were stained with CD4 APC and CD25 (clone M-A251) Brilliant Violet 605™ (left) or Mouse IgG1, κ Brilliant Violet 605™ isotype control (right).

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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 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.

Brilliant Violet 711™ excites at 405 nm and emits at 711 nm. The bandpass filter 710/50 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel. Refer to your instrument manual or manufacturer for support. Brilliant Violet 711™ is a trademark of Sirigen Group Ltd.

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Application Notes: Clone 14G2a is an isotype switch variant from parental hybridoma 14.18 (IgG3)[1]. Additional reported applications (for the relevant formats) include: inducing apoptosis and enhancing cytotoxicity of chemotherapeutic drugs in the neuroblastoma cell line [2]. This clone has also been published as 14.G2a.

Application References:

1. Rogers AE, *et al.* 2012. *Oncogene* 31:4171.

Description: MERTK plays a role in the retinal pigment epithelium as a regulator of rod outer segments fragments phagocytosis. MERTK also plays a role in the inhibition of Toll-like receptor-mediated innate immune responses through the activation of STAT1. Upregulation of MERTK seems to also promote the survival of certain cancer cells, such as t(1;19)-positive acute lymphoblastic leukemias (ALL). MERTK also has a role in cellular migration, as MERTK KO macrophages demonstrate cytoskeletal disruptions that impacts its shape and directional migration. Melanoma cells express high levels of MERTK, which makes this molecule an attractive therapeutic target.

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Antigen References:

1. Schlegel J, *et al.* 2013. *J. Clin. Invest.* 123:2257.
2. Chen J, *et al.* 1997. *Oncogene* 14:2033.
3. Yefimova MG, *et al.* 2013. *Autophagy* 9:653.
4. Zhang W, *et al.* 2013. *J. Med. Chem.* 56:9693.
5. Lee YJ, *et al.* 2012. *J. Leuko. Biol.* 91:921.
6. Krause S, *et al.* 2015. *Blood* 125:820.
7. Tang Y, *et al.* 2015. *PLoS One* 10:e0117787.

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