## **Product Data Sheet**

#### Brilliant Violet 421™ anti-mouse CD304 (Neuropilin-1)

Catalog # / Size: 1326045 / 125 µl

> Clone: 3E12

Isotype: Rat IgG2a, ĸ

Extracellular region of mouse CD304 Immunogen:

Reactivity: Mouse

**Preparation:** The antibody was purified by affinity

> chromatography and conjugated with Brilliant Violet 421™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 421™ and

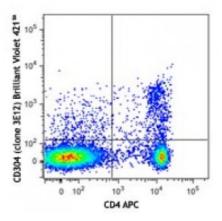
unconjugated antibody.

Formulation: Phosphate-buffered solution, pH 7.2,

containing 0.09% sodium azide and BSA

(origin USA).

**Concentration:** Lot-specific



C57BL/6 mouse splenocytes were stained with CD4 APC and CD304 (clone 3E12) Brilliant Violet 421<sup>†</sup> (top) or rat IgG2a, κ Brilliant Violet 421<sup>™</sup> isotype control (bottom).

### **Applications:**

**Applications:** Flow Cytometry

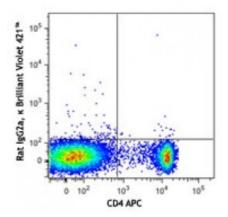
Recommended

**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 ≤5 microL per million cells or 5 microL per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Brilliant Violet 421™ excites at 405 nm and emits at 421 nm. The standard bandpass filter 450/50 nm is recommended for detection. Brilliant Violet 421<sup>™</sup> is a trademark of Sirigen Group Ltd.

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# Application References:

- 1. Blankenhaus B, et al. 2014. PLoS Pathog. 10:1003913. PubMed
- 2. Verhagen J and Wraith DC. 2014. J. Immunol. Methods. S0022. (FC) PubMed
- 3. Verhagen J, et al. 2014. PLoS One. 9e:108023. (FC) PubMed

#### **Description:**

CD304, also known as neuropilin-1, is a 140 kD type I transmembrane protein. Its extracellular region contains two CUB, two FV/FVIII, and one MAM domain. It is expressed by natural regulatory T cells (nTreg), a subset of invariant natural killer T cells (iNKT), endothelial cells, and neurons. Neuropilin-1 stabilizes the interaction between Tregs and dendritic cells, contributes to the recruitment of tumor-infiltrating Tregs in response to tumor-derived VEGF, and influences the process of angiogenesis and axon guidance. The ligands of CD304 are VEGF165 and semaphorin-3A.

## Antigen References:

- 1. Yadav M, et al. 2012. J. Exp. Med. 209:1713.
- 2. Weiss JM, et al. 2012. J. Exp. Med. 209:1723.
- 3. Hansen W, et al. 2012. J. Exp. Med. 209:2001.
- 4. Milpied P, et al. 2011