

**Brilliant Violet 421® anti-human 4-1BB Ligand (CD137L)**

**Catalog # / Size:** 2157535 / 25 tests  
2157540 / 100 tests

**Clone:** 5F4

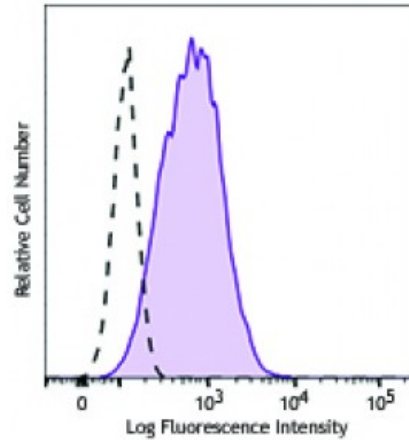
**Isotype:** Mouse IgG1, κ

**Reactivity:** Human

**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



Human T lymphoblastic leukemia cell line, HuT-78, was stained with CD137L (clone 5F4) Brilliant Violet 421™ (filled histogram) or mouse IgG1, κ Brilliant Violet 421™ isotype control (open histogram).

**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™ is a trademark of Sirigen Group Ltd.

**Application Notes:** For most successful immunofluorescent staining results, it may be important to maximize signal over background by using a relatively bright fluorochrome-antibody conjugate (Cat. No. 311504) or by using a high sensitivity, three-layer staining technique (e.g., including a biotinylated anti-mouse IgG second step (Cat. No. 405303), followed by SAv-PE (Cat. No. 405204)).

**Application References:** 1. Gullo C, *et al.* 2010. *PLoS One*. 5:e10845. (FC) [PubMed](#)

**Description:** 4-1BB ligand, also known as CDw137L, is a 97 kD member of the TNF superfamily mainly expressed on APCs, activated B and T cells. It has been reported to be important in T cell proliferation and cytokine production through interaction with 4-1BB receptor. 4-1BB ligand appears to be able to act as a costimulatory molecule without the engagement of other costimulatory molecules such as CD28.

**Antigen References:** 1. Akiba H, *et al.* 2000. *J. Exp. Med.* 191:375.  
2. Pollak KE, *et al.* 1995. *Eur. J. Immunol.* 25:488.  
3. DeBenedette MA, *et al.* 1997. *J. Immunol.* 158:551.  
4. Goodwin RG, *et al.*

