

# Product Data Sheet

## Brilliant Violet 510™ anti-human CD27

**Catalog # / Size:** 2382095 / 25 tests  
2382100 / 100 tests

**Clone:** M-T271

**Isotype:** Mouse IgG1,  $\kappa$

**Workshop Number:** V 5T CD27.03

**Immunogen:** Human T cells from a T-ALL patient.

**Reactivity:** Human, Cross-Reactivity: Baboon, Cynomolgus, Rhesus

**Preparation:** The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 510™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 510™ and unconjugated antibody.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).

**Storage:** The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. **Do not freeze.**

## Applications:

**Applications:** FC - *Quality tested*

**Application Notes:** Additional reported applications (for the relevant formats) include: immunohistochemical staining of formalin-fixed paraffin-embedded frozen tissue sections<sup>1</sup>, immunofluorescent staining<sup>2</sup>, and ELISA<sup>3</sup>.

**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  $\leq 5 \mu\text{l}$  per million cells or  $5 \mu\text{l}$  per  $100 \mu\text{l}$  of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Brilliant Violet 510™ excites at 405 nm and emits at 510 nm. The bandpass filter 510/50 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 510™ is a trademark of Sirigen Group Ltd.

**Application References:** 1. Ma S, *et al.* 2011. *J. Virol.* 85:165. (IHC)  
2. Manzo A, *et al.* 2008. *Arthritis Rheum.* 11:3377. (IF)  
3. Kato K, *et al.* 2007. *Exp. Hematol.* 35:434. (ELISA)

**Description:** CD27 is a 50-55 kD type I membrane protein also known as S152 and T14. It is a lymphocyte-specific member of the TNF-receptor superfamily. CD27 is expressed on medullary thymocytes, virtually all mature T cells, some B cells, and NK cells. CD27 binds to CD70, and plays a role in costimulation of T cell activation and regulation of B cell differentiation and proliferation. The cytoplasmic domains of CD27 have also been shown to interact with TRAF2 and TRAF5 to elicit NF- $\kappa$ B and SAPK/JNK activation.

**Antigen References:** 1. Knapp W, *et al.* 1989. *Leucocyte Typing IV: White Cell Differentiation Antigens.* Oxford University Press.  
2. Schlossman S, *et al.* 1995. *Leucocyte Typing V: White Cell Differentiation Antigens.* Oxford University Press.  
3. Hintzen R, *et al.* 1994. *Immunol. Today* 15:307.  
4. Agematsu K, *et al.* 1995. *J. Immunol.* 154:3627.

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