SONY

# Product Data Sheet

## Brilliant Violet 605™ anti-human CD8

**Catalog # / Size:** 2323705 / 25 tests
2323710 / 100 tests

**Clone:** SK1

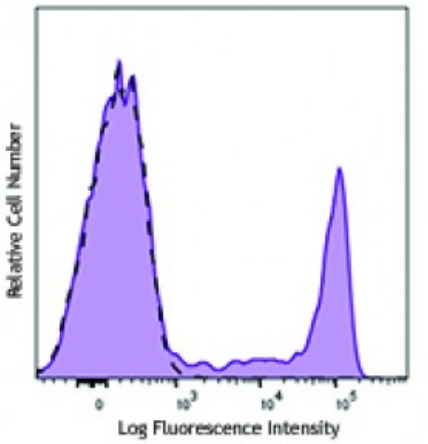
**Isotype:** Mouse IgG1, κ

**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 605™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 605™ and unconjugated antibody.

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

**Concentration:** Lot-specific




Human peripheral blood lymphocytes were stained with CD8 (clone SK1) Brilliant Violet 605™ (filled histogram) or mouse IgG1, κ Brilliant Violet 605™ 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 605™ excites at 405 nm and emits at 603 nm. The bandpass filter 610/20 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 605™ is a trademark of Sirigen Group Ltd.

**Application Notes:** Clone SK1 recognizes the a chain of CD8. Additional reported applications (for the relevant formats) include: immunohistochemistry of acetone-fixed frozen tissue sections and formalin-fixed paraffin-embedded sections[6,7]. This clone was tested in-house and does not demonstrate utility for formalin-fixed paraffin-embedded (FFPE) human tonsil sections. However, there are references cited that indicate that this clone has been used successfully in other FFPE applications[6,7].

**Application References:**

1. Ledbetter JA, *et al.* 1981. *J. Exp. Med.* 153:310.
2. Campanelli R, *et al.* 2002. *Intl. Immunol.* 14:39.
3. Evans RL, *et al.* 1981. *Immunol.* 78:544.
4. Wooldridge L, *et al.* 2005. *J. Bio. Chem.* 280:27491.
5. Ch'el IL, *et al.* 2011. *J Exp Med.* 208:633. PubMed
6. Carbone A, *et al.* 1999. *Blood* 93:2319. (IHC)
7. Ahmed A, *et al.* 2001. *J. Pathol.* 193:383. (IHC)

**Description:** CD8a is a 32-34 kD type I glycoprotein. It forms a homodimer (CD8a/a) or

heterodimer (CD8a/b) with CD8b. CD8, also known as T8 and Leu2, is a member of the immunoglobulin superfamily found on the majority of thymocytes, a subset of peripheral blood T cells, and NK cells (which express almost exclusively CD8a homodimers). CD8 acts as a co-receptor with MHC class I-restricted T cell receptors in antigen recognition and T cell activation and has been shown to play a role in thymic differentiation. Two domains in CD8a are important for function: the extracellular IgSF domain binds the $\alpha_3$ domain of MHC class I and the cytoplasmic CXCP motif binds the tyrosine kinase p56 Lck.

**Antigen References:**

1. Barclay N, *et al.* 1993. *The Leucocyte Antigen FactsBook.* Academic Press Inc. San Diego.