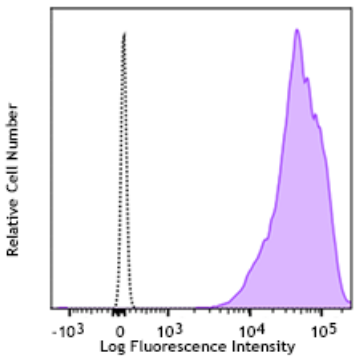
SONY

Product Data Sheet

Brilliant Violet 421™ anti-human CD99

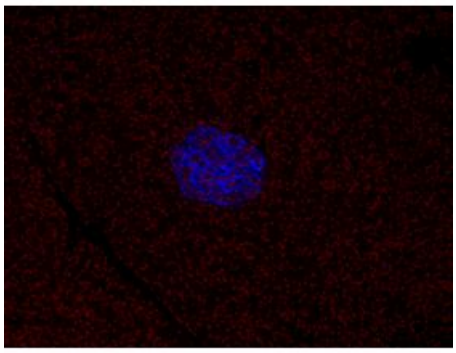
Catalog # / Size:	2456555 / 25 tests 2456560 / 100 tests
Clone:	3B2/TA8
Isotype:	Mouse IgG2a, κ
Immunogen:	Human thymus
Reactivity:	Human
Preparation:	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 421™ under optimal conditions.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).
Workshop Number:	750 under optimal conditions.
Concentration:	Lot-specific



Human peripheral blood lymphocytes were stained with CD99 Brilliant Violet 421™ (clone 3B2/TA8, filled histogram) or mouse IgG1, κ Brilliant Violet 421™ isotype control (open histogram).

Applications:

Applications:	Flow Cytometry, Immunohistochemistry
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 or 5 µl per 100 µl of whole blood. For immunohistochemistry of paraffin-embedded tissue, a concentration range of 2-5 µg/ml is suggested. 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.



Human paraffin-embedded pancreas tissue slices were prepared with a standard protocol of deparaffinization and rehydration. Antigen retrieval was done with Tris-Buffered Saline 1X (1.0 M, pH 7.4) at 95°C for 40 minutes. Tissue was washed with PBS/0.05% Tween 20 twice for five minutes and blocked with 5% FBS and 0.2% gelatin for 30 minutes. Then, the tissue was stained with 2 µg/mL of anti-human CD99 (3B2/TA8) Brilliant Violet 421™ (blue) at 4°C overnight. Nuclei were counterstained with DRAQ5™ (red). The image was captured with a 10X objective.

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Application References:
1. Waclavicek M, *et al.* 1998. *J. Immunol.* 161:4671.
2. Pickl W, *et al.* 2001. *J. Virol.* 75:7175.

Description: CD99 is a type I single chain transmembrane protein devoid of N-linked glycosylation sites encoded by the pseudoautosomal gene MIC2. CD99 has an apparent molecular weight of 32 kD and is widely expressed on a variety of tissues. CD99 is highly expressed on thymocytes, T cells, and T cell leukemias and lymphomas. However, it is absent on some B cell lines, fetal B cells, eosinophils, granulocytes and the NK-cell line YT. CD99 is involved in spontaneous rosette formation with erythrocytes and may also be involved in other T-cell and hematopoietic cell adhesion pathways. CD99 has been reported to activate a caspase-independent death pathway in T cells under some conditions. CD99 interacts with a number of proteins including ferritin heavy chain 1, karyopherin beta 1, TRIP13, cyclophilin A, annexin II, and ubiquitin-conjugating enzyme E2H.

Antigen References:
1. Gelin C, *et al.* 1989. *EMBO.* 8:3253.
2. Goodfellow PJ, *et al.* 1986. *Science* 234:740.
3. Pettersen RD, *et al.* 2001. *J. Immunol.* 166:4931.