Technical Data Sheet

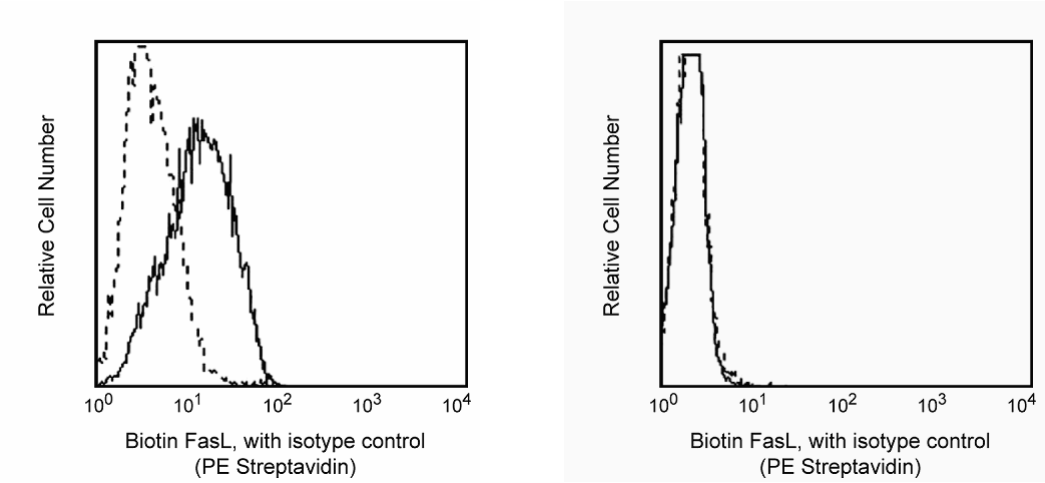
Biotin Mouse Anti-Human CD178

Product Information

Material Number:	**556374**
Alternate Name:	Fas Ligand; CD95 Ligand
Size:	100 tests
Vol. per Test:	20 µl
Clone:	NOK-1
Immunogen:	Mouse T lymphoma cells (L5178Y) expressing human FasL
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

Fas (CD95; APO-1) is a 45 kDa cell surface protein that mediates apoptosis when cross-linked with agonistic anti-Fas antibodies or by Fas ligand (FasL; CD178). Fas belongs to the TNF (Tumor Necrosis Factor)/NGF (Nerve Growth Factor) receptor family, and is expressed in various tissues and cells including the thymus, liver, ovary and lung. CD178 (FasL), a member of the TNF cytokine family, induces apoptosis by binding to Fas, its cell-surface receptor. FasL may exist as either membrane bound or soluble forms and is expressed by activated T and NK cells. FasL may also be constitutively expressed in some immunologically privileged sites, e.g., eye and testis. Fas and FasL play an important role in the induction of apoptosis, and thus regulate a variety of immunological responses. The NOK-1 antibody clone has been reported to recognize human FasL, recognizing both the membrane bound (FasL) and soluble (sFasL) forms. FasL and sFasL have been reported to migrate at reduced molecular weights of 40 and 26 kDa, respectively. However, the molecular weights observed in a particular sample may vary according to FasL and sFasL glycosylation and breakdown patterns as described in the literature. The NOK-1 antibody clone is not recommended for the western blot application.



Flow cytometric analysis of human CD178 (Fas Ligand; FasL). *The mouse T cell lymphoma cell line, L5178Y was transfected with human FasL cDNA and treated with a metalloproteinase inhibitor, KB8301 (left panel). KB8301 blocks FasL cleavage resulting in high levels of cell surface FasL. As expected, FasL was not detected in the parental L5178Y cells after KB8301 treatment (right panel). The data was generated using a 2-step procedure with either biotin-labeled, isotype-matched control antibody (dashed line) or biotin-labeled (NOK-1, Cat. No. 556374) (solid line) followed by PE Streptavidin.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
The antibody was conjugated with biotin under optimum conditions, and unreacted biotin was removed.
Store undiluted at 4° C and protected from prolonged exposure to light. Do not freeze.

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Application Notes

Application

Flow cytometry	Routinely Tested
Western blot	Not Recommended

Suggested Companion Products

Catalog Number	Name	Size	Clone
554061	PE Streptavidin	0.5 mg	(none)
555747	Biotin Mouse IgG1 κ Isotype Control	100 tests	MOPC-21

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 X 10e6 cells in a 100-µl experimental sample (a test).
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Kayagaki N, Kawasaki A, Ebata T, et al. Metalloproteinase-mediated release of human Fas ligand. *J Exp Med.* 1995; 182(6):1777-1783.(Immunogen: Cytotoxicity, Flow cytometry)

Takahashi T, Tanaka M, Brannan CI, Jenkins NA, Copeland NG, Suda T, and Nagata S. Generalized lymphoproliferative disease in mice, caused by a point mutation in the Fas ligand. *Cell.* 1994; 76(6):969-976.(Biology)

Tanaka M, Suda T, Takahashi T, and Nagata S. Expression of the functional soluble form of human Fas ligand in activated lymphocytes. *EMBO J.* 1995; 14(6):1129-1135.(Biology)