Technical Data Sheet

Biotin Mouse Anti-Human CD253

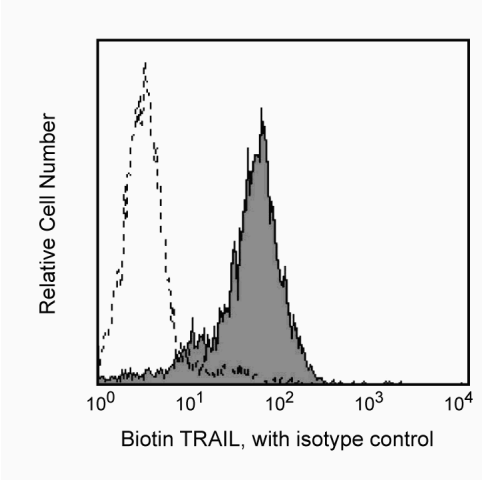
Product Information

Material Number:	**550431**
Alternate Name:	TRAIL, APO-2L, TL2
Size:	0.2 mg
Concentration:	0.5 mg/ml
Clone:	RIK-2
Immunogen:	Human TRAIL
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

TRAIL (TNF-Related Apoptosis-Inducing Ligand), also known as Apo2L, is a member of the TNF ligand family. TRAIl is a type II membrane protein which may be expressed as a full-length, cell surface associated protein as well as in a soluble form. Both surface and soluble forms of TRAIL rapidly induce apoptosis on a wide range of cell lines. TRAIL has been shown to cause apoptotic death in either tumorigenic or transformed cells, but not in normal cells. TRAIL-mediated apoptosis has been shown to involve the activation of caspases, and is blocked by over-expression of the caspase-1 protease inhibitor, CrmA. TRAIL has also been reported to induce the transcription factor NF-κB in a cell type-specific manner. Two cognate TRAIL receptors DR4, and DR5, as well as two decoy receptors, DcR1/TRID and DcR2/TRUNDD have been identified. TRAIL has been shown to be involved in T cell cytotoxicity, but the exact physiological role TRAIL plays in T-cell mediated cytotoxicity remains to be elucidated.

The RIK-2 antibody recognizes human TRAIL. Human TRAIL cDNA was transferred to an expression vector and transfected into the 2PK-3 mouse B cell lymphoma cell line to generate stable transfectants, which were then used to immunize mice. The RIK-2 clone was selected based on its ability to block cytotoxic activity. TRAIL has been renamed as CD253 recently.



Flow cytometric analysis of TRAIL. *Profile of human TRAIL/2PK-3 cell line analyzed on a FACScan™ (BDIS, San Jose, CA)*

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.

Application Notes

Application

Flow cytometry	Routinely Tested

BD Biosciences

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877.232.8995	888.259.0187	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

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Immunofluorescent Staining and Flow Cytometry: Applications include flow cytometry (0.25-1.0 µg/1x10e6 cells).

Blocking: The RIK-2 antibody is useful to block TRAIL-induced apoptosis. The no azide/low endotoxin format (NA/LE), Cat. No. 550912, is recommended for in vitro blocking assays.

Suggested Companion Products

Catalog Number	Name	Size	Clone
554061	PE Streptavidin	0.5 mg	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
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.

References

Kayagaki N, Yamaguchi N, Nakayama M, et al. Involvement of TNF-related apoptosis-inducing ligand in human CD4+ T cell-mediated cytotoxicity. *J Immunol.* 1999; 162(5):2639-2647.(Immunogen: Blocking)

Mariani SM, Matiba B, Armandola EA, Krammer PH. Interleukin 1 beta-converting enzyme related proteases/caspases are involved in TRAIL-induced apoptosis of myeloma and leukemia cells. *J Cell Biol.* 1997; 137(1):221-229.(Biology)

Marsters SA, Pitti RM, Donahue CJ, Ruppert S, Bauer KD, Ashkenazi A. Activation of apoptosis by Apo-2 ligand is independent of FADD but blocked by CrmA. *Curr Biol.* 1996; 6(6):750-752.(Biology)

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Sheridan JP, Marsters SA, Pitti RM, et al. Control of TRAIL-induced apoptosis by a family of signaling and decoy receptors. *Science.* 1997; 277(5327):818-821.(Biology)

Wiley SR, Schooley K, Smolak PJ, et al. Identification and characterization of a new member of the TNF family that induces apoptosis. *Immunity.* 1995; 3(6):673-682.(Biology)