

Technical Data Sheet

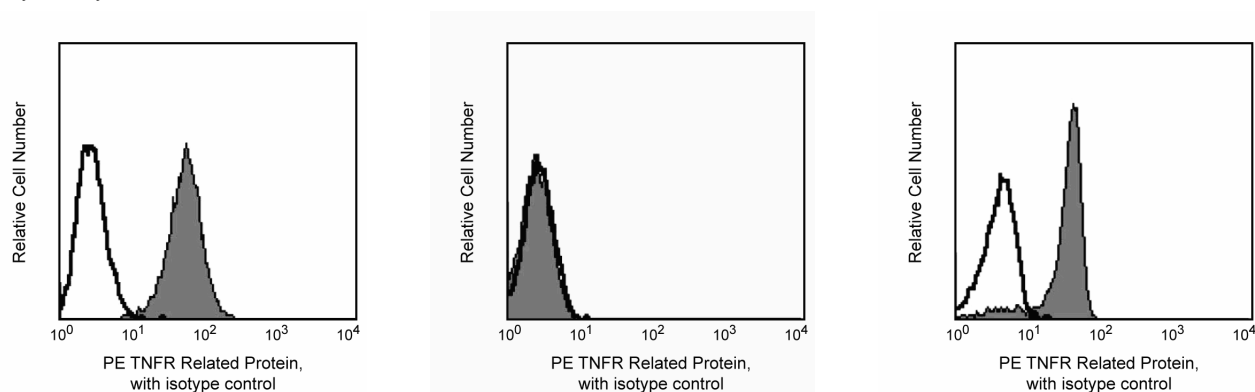
PE Mouse Anti-Human TNFR Related Protein (LTβR)

Product Information

Material Number:	551503
Size:	0.2 mg
Concentration:	0.2 mg/ml
Clone:	hTNFR-RP-M12
Immunogen:	Human LTβR-Fc protein
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The hTNFR-RP-M12 antibody reacts with the extracellular domain of the 61 kDa receptor for the human cytokines, LTα1β2 and LIGHT. This receptor is referred as the Lymphotoxin β Receptor (LTβR). The gene encoding LTβR has been designated as the TNFRSF3 by the Human Gene Nomenclature Committee (<http://www.gene.ucl.ac.uk/users/hester/tnftop.html>). LTβR was previously known as TNFRIII and TNF receptor-related protein (TNFRrp). LTβR is a type I transmembrane glycoprotein and member of the TNF Receptor Superfamily. LTβR are expressed on stromal cells in lymphoid tissue, normal dermal fibroblasts, bronchial airway epithelial cells and in a variety of adherent cell lines including FDC-1, U937, HT-29, HeLa and HEK 293 cells. LTβR are absent on human peripheral blood T and B cells and expressed at low levels by monocytes.



Overlapping Histograms Figure: Expression of cell surface LTβR by HeLa, Jurkat and human monocytes. HeLa (left panel) and Jurkat (center panel) cells were stained with R-PE-conjugated hTNFR-RP-M12 (0.5 μg/10⁶ cells, Cat No. 551503). Staining with the hTNFR-RP-M12 antibody (filled histograms) is compared to staining obtained using the isotype control antibody (open histograms). The histograms in the figure (left and center) were derived from gated events with the light scattering characteristics of viable cells. Similarly, whole human blood was first treated with PharmLyse™ (Cat No. 555899) to lyse erythrocytes prior to staining with hTNFR-RP-M12. The peripheral blood leucocytes were subsequently blocked with normal polyclonal human IgG (5 μg/10⁶ cells) and stained with R-PE-conjugated hTNFR-RP-M12 (0.5 μg/10⁶ cells, Cat No. 551503). Staining with the R-PE-conjugated hTNFR-RP-M12 antibody (filled histograms) is compared to staining obtained using the mouse IgG1 isotype control (open histograms). The histograms in the right panel were derived from gated events with the light scattering characteristics of monocytes. Note: Certain human cell lines or cell types (e.g., neutrophils, monocytes) can first be treated with reagents that block receptors for the Fc regions of immunoglobulin to avoid nonspecific immunofluorescent staining mediated by Fc receptors.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

Flow cytometry	Routinely Tested
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Suggested Companion Products

Catalog Number	Name	Size	Clone
554680	PE Mouse IgG1, κ Isotype Control	0.1 mg	MOPC-21
555899	Lysing Buffer	100 ml	(none)

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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharming/en/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

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- Murphy M, Walter BN, Pike-Nobile L., Expression of the lymphotoxin beta receptor on follicular stromal cells in human lymphoid tissues. *Cell Death Differ.* 1998; 5(6):497-505. (Biology)
- Rooney IA, Butrovich KD, Glass AA, et al. The lymphotoxin-beta receptor is necessary and sufficient for LIGHT-mediated apoptosis of tumor cells. *J Biol Chem.* 2000; 275(19):14307-14315. (Biology)
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