Human TRAILR4/TNFRSF10D Antibody

Recombinant Monoclonal Mouse IgG_1 Clone # 104918R

Catalog Number: MAB633R

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human TRAIL R4/TNFRSF10D in direct ELISAs.
Source	Recombinant Monoclonal Mouse IgG_1 Clone # 104918R
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human TRAIL R4/TNFRSF10D Ala56-His211 Accession # Q9UBN6
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

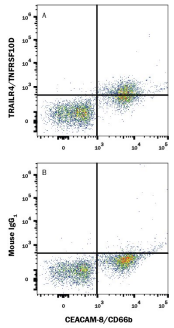
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Flow Cytometry	0.25 µg/10^6 cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	
Neutralization	Measured by its ability to neutralize TRAIL R4/TNFRSF10D-mediated inhibition of cytotoxicity in the L-929 mouse fibroblast cell line. The Neutralization Dose (ND50) is typically 0.3-1.8 µg/mL in the presence of 90 ng/mL Recombinant Human TRAIL R4/TNFRSF10D Fc Chimera, 20 ng/mL of Recombinant Human TRAIL/TNFSF10 and actinomycin D.	
ELISA	This antibody functions as an ELISA capture antibody when paired with Goat Anti-Human TRAILR4/TNFRSF10D Antigen Affinity-purified Polyclonal Antibody (Catalog # AF633). This product is intended for assay development on various assay platforms requiring antibody pairs. We recommend the Human TRAIL R4/TNFRSF10D DuoSet ELISA Kit (Catalog # DY633) for convenient development of a sandwich ELISA.	

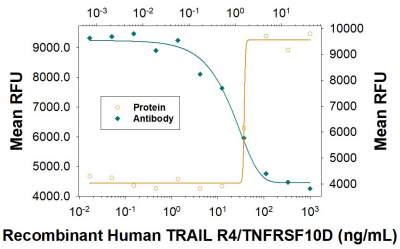
DATA

Flow Cytometry



Detection of TRAILR4 in Human peripheral blood cells by Flow Cytometry. Human peripheral blood cells were stained with (A) Mouse Anti-Human TRAILR4 Monoclonal Antibody (Catalog # MAB663R) or (B) Mouse IgG1 isotype control antibody (Catalog # Catalog # MAB002) followed by PE-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # Catalog # F0102B) and Mouse anti-Human CEACAM-8/CD66b APC-conjugated Monoclonal Antibody (Catalog # Catalog # FAB4246A). View our protocol for Staining Membrane-associated Proteins.

Neutralization



TRAIL R4/TNFRSF10D Inhibition of TRAIL/TNFSF10-induced Cytotoxicity and Neutralization by Human TRAIL R4/TNFRSF10D Antibody. In the presence of the metabolic inhibitor actinomycin D, Recombinant Human TRAIL R4/TNFRSF10D Fc Chimera (Catalog # Catalog # 633-TR) inhibits Recombinant Human TRAIL/TNFSF10 (Catalog # Catalog # 375-TEC) induced cytotoxicity in the L-929 mouse fibroblast cell line in a dose-dependent manner (orange line). Under these conditions, inhibition of Recombinant Human TRAIL/TNFSF10 (20 ng/mL) activity elicited by Recombinant Human TRAIL R4/TNFRSF10D Fc Chimera (90 ng/mL) is neutralized (green line) by increasing concentrations of Human TRAIL R4/TNFRSF10D Monoclonal Antibody (Catalog # MAB633R). The $ND_{50}$is typically 0.3-1.8 µg/mL.

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Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449

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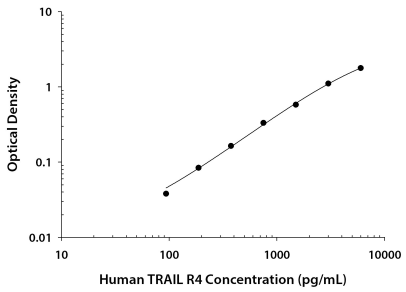
ELISA



Human TRAILR4/TNFRSF10D ELISA Standard Curve. Recombinant Human TRAILR4/TNFRSF10D protein was serially diluted 2-fold and captured by Mouse Anti-Human TRAILR4/TNFRSF10D Monoclonal Antibody (Catalog # MAB633R) coated on a Clear Polystyrene Microplate (Catalog # DY990). Goat Anti-Human TRAILR4/TNFRSF10D Antigen Affinity-purified Polyclonal Antibody (Catalog # AF633) was biotinylated and incubated with the protein captured on the plate. Detection of the standard curve was achieved by incubating Streptavidin-HRP (Catalog # DY998) followed by Substrate Solution (Catalog # DY998) and stopping the enzymatic reaction with Stop Solution (Catalog # DY994).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Human TRAIL R4, also called decoy receptor 2 (DcR2) and TRUNND (TRAIL receptor with a truncated death domain), is a type I, TNF R family transmembrane protein, which is a receptor for TRAIL (APO2 ligand). In the TNF superfamily nomenclature, TRAIL R4 is designated as TNFRSF10D. TRAIL R4 is unique among the TRAIL receptors in that its cytoplasmic domain contains a truncated consensus death domain motif. Binding of TRAIL R4 does not result in an apoptotic signal. Overexpression of TRAIL R4 can protect cells bearing TRAIL R1 and/or TRAIL R2 from TRAIL-mediated apoptosis. The human soluble TRAIL R4/Fc chimera neutralizes the ability of TRAIL to induce apoptosis.

References:

1. Griffith, T.S. *et al.* (1998) Curr. Opin. Immunol. **10:**559.
2. Pan, G. *et al.* (1998) FEBS lett **424:**41.
3. Marsters, S.A. *et al.* (1997) Cur. Biol. **7:**1003.
4. Degli-Esposti, M.A. *et al.* (1997) Immunity **7:**813.

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