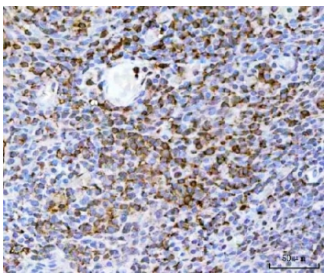
TRAILR2 Antibody / TRAIL Receptor 2 Polyclonal Antibody (RQ8016)

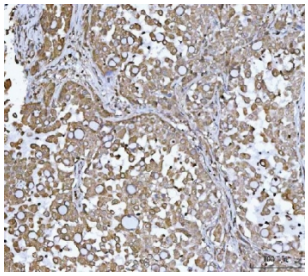
Catalog No.	Formulation	Size
RQ8016	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

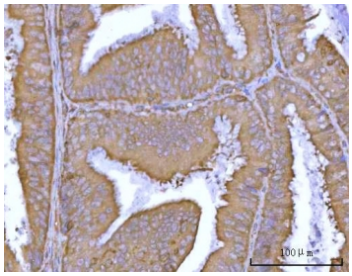
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	O14763
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Flow cytometry: 1-3ug/million cells Direct ELISA: 0.1-0.5ug/ml
Limitations	This TRAILR2 Antibody / TRAIL Receptor 2 Polyclonal Antibody is available for research use only.



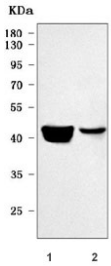
TRAILR2 Antibody IHC Staining of Human Tonsil Tissue. Immunohistochemical analysis of FFPE human tonsil tissue using TRAIL Receptor 2 Polyclonal Antibody. Brown DAB immunoreactivity is observed in numerous lymphoid cells, with a heterogeneous distribution throughout the tissue. Heat-induced epitope retrieval was performed by boiling tissue sections in EDTA buffer at pH 8 for 20 minutes, followed by cooling before staining.



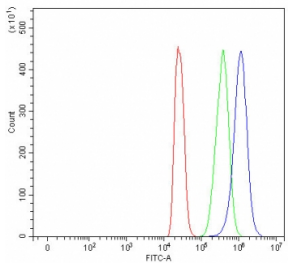
TRAILR2 Antibody IHC Staining of Human Lung Carcinoma. Immunohistochemical analysis of FFPE human lung carcinoma tissue using TRAIL Receptor 2 Polyclonal Antibody. Brown DAB staining is observed in tumor cells, with heterogeneous cytoplasmic and membranous immunoreactivity. Heat-induced epitope retrieval was performed by boiling tissue sections in EDTA buffer at pH 8 for 20 minutes, followed by cooling before staining.



TRAILR2 Antibody IHC Staining of Human Endometrioid Adenocarcinoma. Immunohistochemical analysis of FFPE human endometrioid adenocarcinoma tissue using TRAIL Receptor 2 Polyclonal Antibody. Brown DAB immunoreactivity is observed in malignant glandular epithelial cells, with predominantly cytoplasmic staining and additional staining along cell boundaries. Heat-induced epitope retrieval was performed by boiling tissue sections in EDTA buffer at pH 8 for 20 minutes, followed by cooling before staining.



TRAILR2 Antibody WB Analysis of Human K562 and Rat PC-12 Cell Lysates. Western blot analysis of human K562 (lane 1) and rat PC-12 (lane 2) cell lysates using TRAIL Receptor 2 Polyclonal Antibody. Immunoreactive bands are detected near 40 kDa in both samples, consistent with the reported molecular weight of mature TRAILR2. The receptor has a predicted precursor molecular weight of approximately 48 kDa, and higher molecular weight forms near 60 kDa have also been documented.



TRAILR2 Antibody FACS Staining of Human 293T Cells. Flow cytometry analysis of fixed and permeabilized human 293T cells using TRAIL Receptor 2 Polyclonal Antibody at 1 ug per million cells following blocking with goat serum. The blue histogram represents TRAILR2 antibody-stained cells, the green histogram represents the isotype control, and the red histogram represents unstained cells. A rightward fluorescence shift is observed in the antibody-stained population relative to both controls, demonstrating TRAILR2 detection in fixed and permeabilized cells.

Description

TRAILR2 Antibody / TRAIL Receptor 2 Polyclonal Antibody targets TRAIL receptor 2 (TRAILR2), a transmembrane signaling protein encoded by the TNFRSF10B gene. Also known as death receptor 5 (DR5), CD262, and KILLER, TRAILR2 belongs to the tumor necrosis factor receptor superfamily and participates in the regulation of programmed cell death. It binds tumor necrosis factor-related apoptosis-inducing ligand (TRAIL), encoded by TNFSF10, and transmits signals that can initiate the extrinsic apoptotic pathway. Unlike TRAIL decoy receptors, TRAILR2 contains a functional intracellular death domain that enables recruitment of proteins required for caspase activation.

TRAILR2 contains extracellular cysteine-rich domains involved in ligand recognition, a transmembrane segment, and a cytoplasmic death domain. TRAIL binding promotes receptor clustering and assembly of the death-inducing signaling complex (DISC). This complex recruits the adaptor protein FADD and initiator procaspases, particularly procaspase-8, leading to activation of downstream apoptotic signaling. Activated caspase-8 can directly stimulate executioner caspases or cleave BID to engage mitochondrial pathways that amplify the apoptotic response. These events contribute to the controlled elimination of damaged or abnormal cells.

TRAILR2 activity is influenced by receptor expression, intracellular trafficking, post-translational modifications, and the balance of pro-apoptotic and anti-apoptotic signaling proteins. TNFRSF10B transcription can increase in response to cellular stress through mechanisms involving p53 and other transcription factors. Depending on cellular context, receptor activation may also stimulate non-apoptotic pathways involving NF-kappaB, MAP kinases, and inflammatory signaling. These alternative responses can influence cellular survival, migration, and interactions with the surrounding microenvironment. Receptor localization and the composition of intracellular signaling complexes help determine the biological outcome of TRAIL engagement.

TRAILR2 has attracted considerable attention in cancer biology because activation of the extrinsic apoptotic pathway can promote the elimination of malignant cells. However, resistance to TRAIL-induced apoptosis may develop through altered

receptor trafficking, impaired caspase activation, or increased anti-apoptotic signaling. Therapeutic approaches targeting TRAIL receptors have been investigated as potential strategies for promoting tumor-cell death, although their effectiveness depends on cellular context and signaling competence. TRAILR2 Antibody supports investigations of death receptor regulation, apoptotic signaling, tumor-cell survival, and mechanisms underlying resistance to TRAIL-mediated cell death.

For an alternative monoclonal antibody targeting this apoptosis-regulating receptor, see our DR5 Antibody DR5/3381, validated for immunohistochemistry and supported by human protein microarray specificity analysis.

Application Notes

Optimal dilution of the TRAILR2 Antibody / TRAIL Receptor 2 Polyclonal Antibody should be determined by the researcher.

Immunogen

E. coli-derived recombinant human protein (amino acids I56-K388) was used as the immunogen for the TRAILR2 antibody.

Storage

After reconstitution, the TRAILR2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Death receptor 5 antibody, DR5 antibody, TRAIL-R2 antibody, TRAIL R2 antibody, CD262 antibody, KILLER antibody, KILLER/DR5 antibody, TNFRSF10B antibody, TNF receptor superfamily member 10B antibody, Tumor necrosis factor receptor superfamily member 10B antibody, TRICK2 antibody, TRICK2A antibody, TRICK2B antibody, TRICKB antibody, ZTNFR9 antibody

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