abcam

ab2219

# Anti-TRAIL antibody [2E5]

## Key facts

| | |
|---|---|
| **Isotype** | IgG1 |
| **Host species** | Mouse |
| **Storage buffer** | pH: 7.4 Preservative: 0.1% Sodium azide Constituents: PBS |
| **Form** | Liquid |
| **Clonality** | Monoclonal |
| **Immunogen** | Recombinant Fragment Protein within Human TNFSF10 aa 50-300. The exact immunogen used to generate this antibody is proprietary information. Database link P50591 |
| **Clone number** | 2E5 |
| **Purification technique** | Affinity purification Protein A |
| **Specificity** | This antibody is specific for TRAIL, Tumour necrosis factor (TNF) related apoptosis inducing ligand (TRAIL/ APO2-L)). |
| **Light chain type** | unknown |
| **Concentration** | 1 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |
| **Purification notes** | Purified from TCS. |

## Reactivity data

## Flow Cyt

**Tested**

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1-5 µg/mL |
| **Notes** | - |

### Not recommended

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | - |
| **Notes** | - |

## Target data

See full target information TNFSF10

| | |
|---|---|
| **Function** | Cytokine that binds to TNFRSF10A/TRAILR1, TNFRSF10B/TRAILR2, TNFRSF10C/TRAILR3, TNFRSF10D/TRAILR4 and possibly also to TNFRSF11B/OPG (PubMed:10549288, PubMed:26457518). Induces apoptosis. Its activity may be modulated by binding to the decoy receptors TNFRSF10C/TRAILR3, TNFRSF10D/TRAILR4 and TNFRSF11B/OPG that cannot induce apoptosis. |

## Storage

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|---|---|
| **Shipped at conditions** | Blue Ice |
| **Appropriate short-term storage duration** | 1-2 weeks |
| **Appropriate short-term storage conditions** | +4°C |
| **Appropriate long-term storage conditions** | -20°C |
| **Aliquoting information** | Upon delivery aliquot |
| **Storage information** | Avoid freeze / thaw cycle |

## Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

**Activity summary**

| | |
|---|---|
| | TRAIL also known as TNF-related apoptosis-inducing ligand plays an important role in inducing apoptosis. This protein has a mass of around 32 kDa and is expressed across various tissues including immune cells. TRAIL interacts with specific receptors on the cell surface to initiate a signaling cascade that results in programmed cell death. It is an attractive therapeutic target because of its selective ability to induce apoptosis in cancer cells while sparing most normal cells. |
| **Biological function summary** | TRAIL's function extends beyond inducing cell death. It is an important member of the tumor necrosis factor (TNF) superfamily which regulates immune responses and inflammation. TRAIL can form a homotrimeric complex allowing it to bind effectively to death receptors on target cells specifically DR4 and DR5 triggering a series of downstream signaling events. This interaction is significant in modulating immune surveillance and tumor suppression. |
| **Pathways** | TRAIL is integral to both intrinsic and extrinsic apoptosis pathways. Through these pathways TRAIL is closely related to FADD and caspase-8 which are important for apoptosis induction. The extrinsic pathway involves binding to TRAIL death receptors leading to DISC formation while the intrinsic pathway involves mitochondrial events mediated by members of the Bcl-2 protein family. |
| **Associated diseases and disorders** | TRAIL has a significant connection with cancer and autoimmune diseases. TRAIL plays a dual role in cancer where it acts as a tumor suppressor but can also promote tumor progression if cancer cells become resistant to its effects. In cancer TRAIL’s interaction with proteins like FLIP can alter the apoptotic potential of the cells. In autoimmune diseases TRAIL's dysregulation can contribute to tissue damage due to increased immune activity highlighting its complex role in maintaining immune balance. |

## Product promise

**Tested**

We have tested this species and application combination and it works. It is covered by our product promise.

**Expected**

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

**Predicted**

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

**Not recommended**

We do not recommend this combination. It is not covered by our product promise.

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