

Product Information

Anti-DR3, Extracellular Domain

produced in rabbit, IgG fraction of antiserum

Catalog Number **D3688**

Synonyms: Anti-Apo-3; Anti-Death Receptor 3; Anti-LARD; Anti- TRAMP; Anti- Wsl-1

Product Description

Anti-DR3, Extracellular Domain is produced in rabbit using as immunogen a peptide corresponding to amino acids 59-77 in the extracellular domain (ED) of human DR3 precursor.^{1,2}

Anti-DR3, Extracellular Domain specifically recognizes the extracellular domain of death receptor 3 in human cells by immunoblotting.

Apoptosis or programmed cell death is induced in cells by a group of death domain-containing receptors including TNFR1, Fas, DR3, DR4, and DR5. Binding of ligand to these receptors sends signals that activate members of the caspase family of proteases. The signals ultimately cause the degradation of chromosomal DNA by activating DNase.

DR3 was characterized independently by several groups and is also referred to as Wsl-1, Apo-3, TRAMP, and LARD.²⁻⁵ DR3 is a novel cell death receptor and is a member of the TNF superfamily. These proteins share homologies in both their extracellular ligand binding domains and their intracellular effector domains (death domains). These death domains are approximately 80 amino acids long.⁶ Apoptosis is induced by the binding of certain cytokines including TNF and Fas ligand to death domain containing receptors.¹ In addition to inducing apoptosis, DR3 activates NF- κ B.⁶ DR3 is expressed in lymphocyte rich tissues such as blood, thymus and spleen.

Reagent

Supplied at 0.5 mg/ml in phosphate buffered saline, containing 0.02% sodium azide.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Antibody can be stored at 2-8 °C for three months and at -20 °C for one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Product Profile

Immunoblotting: the recommended working concentration is 0.5 μ g/ml using human Jurkat cell extract. A band of 59 kDa band was detected.

Since DR3 is a glycosylated protein, bands in the range of 53-59 kDa may be detected in different cell lines due to differences in glycosylation. Furthermore, DR3 has at least 11 distinct isoforms generated from alternative pre-mRNA splicing. The ~38 kDa faint band is most likely a splicing variant

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

References

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4. Bodmer, J.L., et al. TRAMP, a novel apoptosis-mediating receptor with sequence homology to tumor necrosis factor receptor 1 and Fas(Apo-1/CD95). *Immunity*, **6**, 79-88 (1997).
5. Screaton, G.R., et al., LARD: a new lymphoid-specific death domain containing receptor regulated by alternative pre-mRNA splicing. *Proc. Nat. Acad. Sci USA.*, **94**, 4615- 4619 (1997)

6. Singh, A., et al., Death domain receptors and their role in cell demise. *J. Interferon Cytokine Res.*, **18**, 439-450 (1998).
7. Muzio, M., Signaling by proteolysis: death receptors induce apoptosis. *Int. J. Clin. Lab Res.*, **28**, 141-147 (1998).

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