



Product Information

ANTI-DR4 (TRAIL-R1), N-TERMINAL

Developed in Rabbit,
IgG Fraction of Antiserum

Product Number **D3813**

Product Description

Anti-DR4 (Death Receptor 4) is developed in rabbit using a peptide corresponding to amino acids 1-20 of mature human DR4 as immunogen.

Anti-DR 4 specifically recognizes death receptor 4 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.

DR4 is a novel death domain containing receptor whose ligand has been identified as TRAIL or apoptosis-inducing ligand 2 (Apo2L). DR4 is sometimes referred to as TRAIL Receptor-1.¹⁻⁴ It is a member of the TNF superfamily of receptors that induce apoptosis. 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.⁵ DR4 induces apoptosis in a variety of human tumor cell lines but not in normal cells and activates NF- κ B.^{2,3} DR4 is expressed in most human tissues including spleen, peripheral blood leukocytes, small intestine, and thymus.

Reagents

Anti-DR4 is supplied as 0.5 mg/ml of IgG fraction of antiserum in phosphate buffered saline, containing 0.02% sodium azide.

Precautions and Disclaimer

Due to the sodium azide content, a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult

the MSDS for information regarding hazardous and safe handling practices.

Storage/Stability

Store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. Storage in "frost-free" freezers is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

The recommended working concentration is 0.5 μ g/ml (1:500 to 1:1000 dilution) by immunoblotting using total HeLa cell lysates. A 57 kDa band is detected. Additional bands of approximately 130 kDa and 24 kDa may also be detected. Their identity is unknown.

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

References

1. Pan, G., et al., The receptor for the cytotoxic ligand TRAIL. *Science*, **276**, 111-113 (1997).
2. Wiley, S.R., et al., Identification and characterization of a new member of the TNF family that induces apoptosis. *Immunity*, **3**, 673-682 (1995).
3. Pitti, R.M., et al., Induction of apoptosis by Apo-2 ligand, a new member of the tumor necrosis factor cytokine family. *J. Biol. Chem.*, **271**, 12687-12690 (1996).
4. Schneider, P., et al., TRAIL receptors 1 (DR4) and 2 (DR5) signal FADD-dependent apoptosis and activate NF- κ B. *Immunity*, **7**, 831-836 (1997).
5. Singh, A., et al., Death domain receptors and their role in cell demise. *J. Interferon Cytokine Res.*, **18**, 439-450 (1998).

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