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Polyclonal Antibody to DR4/TRAILR1 (CT)

Catalog No : **IMG-108-1**
Formulation : 0.05 mg of purified antibody in PBS containing 0.02% sodium azide.
Isotype : Rabbit Ig
Clone : N/A
Purification : Protein G Chromatography
Species React : Human
Host : Rabbit

Application

Western blot analysis: 1:500-1:1000

Storage

Store at 4°C.

Recommended Positive Control: HeLa

Background

Apoptosis, or programmed cell death, occurs during normal cellular differentiation and development of multicellular organisms. Apoptosis is induced by certain cytokines including TNF and Fas ligand in the TNF family through their death domain containing receptors, TNFR1 and Fas. A novel death domain containing receptor was recently identified and designated DR4 (for death receptor 4) (1). The ligand for this novel death receptor has been identified and termed TRAIL (2), which is a new member in the TNF family. DR4 is also called TRAIL receptor-1 (TRAIL-R1) (3). DR4 is expressed in most of human tissues including spleen, peripheral blood leukocytes, small intestine and thymus. Like TNFR1, Fas and DR3, DR4 mediates apoptosis and NFkB activation in many tissues and cells.

Antigen

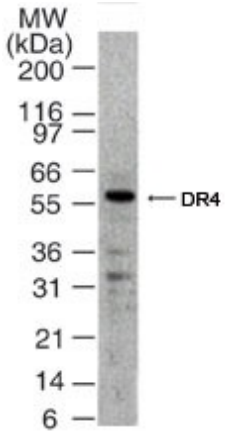
Rabbit anti-DR4 (CT) polyclonal antibody was raised against a peptide corresponding to amino acid 427 to 445 of human DR4 mature protein.

Application Notes

A 57 KDa band should be observed.

Genebank Info (Protein)

NP_042998



Western blot analysis of 50 µg of total cell lysate from HeLa cells with anti-DR4 (CT) at 1:500 dilution.

Related Products

1. 20301 [Goat Anti-Rabbit HRP Conjugate]
2. IMG-5142A [Polyclonal Antibody to beta Actin]
3. IMG-5143A [Polyclonal Antibody to GAPDH]
4. 40161 [HeLa cell line lysate (cervical carcinoma)]

Reference

1. Pan G; O'Rourke K; Chinnaiyan AM; O'Rourke K; Gentz R; Ebner R; Ni J; Dixit VM. The receptor for the cytotoxic ligand TRAIL. Science; 1997; 276:111-113.
2. Pitti RM; Marsters SA; Ruppert S; Donahue CJ; Moore A; Ashkenazi A. Induction of apoptosis by Apo-2 ligand, a new member of the tumor necrosis factor cytokine family. J. Biol. Chem. 1996; 271:12687-90.
3. Schneider P, Thome M, Burns K, Bodmer JL, Hofmann K, Kataoka T, Holler N, Tschopp J. TRAIL receptors 1 (DR4) and 2 (DR5) signal FADD-dependent apoptosis and activate NF- ÛB. Immunity 1997; 7:831-836.

Product Citations

1. Mifepristone Pretreatment Overcomes Resistance of Prostate Cancer Cells to Tumor Necrosis Factora-related Apoptosis-inducing Ligand (TRAIL). Manal A. Eid, Ronald W. Lewis, and M. Vijay Kumar. *Mol. Cancer Ther.* 1: 831-840 (2002).
2. The Cytokines Tumor Necrosis Factor-a (TNF- a) and TNF-related Apoptosis-inducing Ligand Differentially Modulate Proliferation and Apoptotic Pathways in Human Keratinocytes Expressing the Human Papillomavirus-16 E7 Oncoprotein. John R. Basile, Valerie Zacny, and Karl Münger. *J. Biol. Chem,* 276: 22522 22528 (2001).
3. Synergistic antitumor activity of TRAIL combined with chemotherapeutic agents in A549 cell lines in vitro and in vivo. Qing-Lin Fan1, Wen-Yi Zou3, Li-Hua Song and Wei Wei. *Cancer Chemotherapy and Pharmacology.* Volume 55 (2): 189-196 (2005).
4. Abrogation of constitutive STAT3 activity sensitizes human hepatoma cells to TRAIL-mediated apoptosis. Mariko Kusaba, Kazuhiko Nakao, Takashi Goto, Daisuke Nishimura, Hiroshi Kawashimo, Hidetaka Shibata, et al. Journal of Hepatology, In Press, Corrected Proof, Available online 6 June 2007,

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