

Polyclonal Antibody to DcR1 (TRAIL-R3, TRID, LIT)



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Polyclonal Antibody to DcR1 (TRAIL-R3, TRID, LIT)

Catalog No : IMG-245-2
Formulation : 100 ug in 200 ul PBS containing 0.02% sodium azide. Sodium azide is highly toxic.
Isotype : Rabbit IgG
Clone : N/A
Purification : Protein G Chromatography
Species React : Human
Host : Rabbit

Application
Western blot analysis: 1 ug/ml
Storage
Store at 4°C.

Recommended Positive Control: 293 or HeLa

Background

Cells undergo programmed cell death (Apoptosis) in response to various stimuli. Apoptosis is essential for morphogenesis, tissue homeostasis, and host defense. 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 receptors have been recently identified and designated DR4 and DR5 (for death receptor 4). DR4 and DR5 are functional receptors for TRAIL, and DcR1/TRID and DcR2 are decoy receptors 1-3. DcR1 is also designated as TRAIL-R3, TRID or LIT2-7. DcR1 has an extracellular TRAIL-binding domain but lacks intracellular death domain and does not induce apoptosis. TRAIL-R3 also has several sites for potential N- (5 sites) and O-linked (approximately 20) glycosylation and GPI addition. Antibodies made against TRAIL-R3/DcR1 detects a protein of approximate molecular mass of 65kDa in the western blot analysis under denaturing and reducing conditions instead of theoretical Mr of 29 kDa⁶. The slow migration of this protein in SDS-PAGE is probably due to the presence of 5 TAPE (threonine, alanine, proline, and glutamine-rich) repeats. The TAPE repeat-deficient receptor migrates normally in SDS-PAGE⁶. Unlike TRAIL-R1 (DR4) and TRAIL-R2 (DR5), DcR1/TRAIL-R3 transcript is restricted to skeletal muscle, peripheral blood lymphocytes, and the spleen.

Antigen

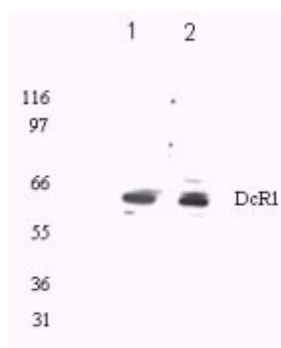
This antibody was raised by immunizing rabbits with a peptide corresponding to aa 149-167 at the extracellular domain of human DcR1 precursor (4-6).

Application Notes

A 65 kDa band is observed.

Genebank Info (Protein)

NP_803187



Western blot analysis of 20 µg of whole cell lysate from HeLa (Lane 1) and 293 (Lane 2) cells with anti-DcR2 at 1 ug/ml dilution.

Related Products

- 20301 [Goat Anti-Rabbit HRP Conjugate]
- IMG-5142A [Polyclonal Antibody to beta Actin]
- IMG-5143A [Polyclonal Antibody to GAPDH]
- 40164 [HEK293 cell line lysate (embryonic kidney)]
- 40161 [HeLa cell line lysate (cervical carcinoma)]

Reference

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- Pan G, O'Rourke K, Chinnaiyan AM, Gentz R, Ebner R, Ni J, Dixit VM. Science 1997;276:111-113.
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- Degli-Esposti MA, Smolak PJ, Walczak H. et al. J Exp Med 166: 1165-1170 (1997).
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6. Shneider P, Bodmer JL, Thome M, Hofmann K, Holler N, and Tschopp J. *FEBS Lett.* 416: 329-334 (1997).
7. Mongkolsapaya J, Cowper AE, Xu XN, et al. *J Immunol* 160: 3-6 (1998).

Product Citations

- 1. Activation of nuclear factor- κ B contributes to induction of death receptors nuclear and apoptosis by the synthetic retinoid CD437 in DU145 human prostate cancer cells.** Jin F, Liu X, Zhou Z, Yue P, Lotan R, Khuri FP, Chung LWK, and Sun S-Y. *Cancer Res.*, 65: 6354-6363 (2005). **WB (lysate from cells infected with lentivirus carrying the DcR1 gene): Fig 6. Note: The specificity of the antibody was virally infected validated by western blot (using DcR1 lentivirus infected cell lysate) in Fig 6.**
- 2. Cathepsin E prevents tumor growth and metastasis by catalyzing the proteolytic release of soluble TRAIL from tumor cell surface.** Kawakubo T, K Okamoto, J Iwata, M Shin, Y Okamoto, A Yasukochi, K Nakayama, T Kadowaki, T Tsukuba, K Tamamoto. *Cancer Research* 67: 10869-10878 (2007). **Imagenex products cited:**
- 1. IMG-121 (DcR2): WB (human prostate carcinoma cell lines), Fig. 4B.**
2. IMG-245 (DcR1): WB (human prostate carcinoma cell lines), Fig. 4B.
- 3. Baicalein overcomes tumor necrosis factor-related apoptosis-inducing ligand resistance via two different cell-specific pathways in cancer cells but not in normal cells.** Taniguchi H, T Yoshida, M Horinaka, T Yasuda, AE Goda, M Konishi, M Wakada, K Kataoka, T Yoshikawa and T Sakai. *Cancer Research* 68: 8918-8927 (2008). **Imagenex products cited:**
- 1. IMG-121 (DcR2): WB (human colon carcinoma SW480 cell line), Fig 3.**
2. IMG-245 (DcR1): WB (human colon carcinoma SW480 cell line), Fig 3.
- 4. Predominant antitumor effects by fully human anti-TRAIL-receptor2 (DR5) monoclonal antibodies in human glioma cells in vitro and in vivo.** Nagane M, S Shimizu, E Mori, S Kataoka, Y Shiokawa. *Neuro-Onc* doi: 10.1093/neuonc/nop069 (2010). **IMGENEX products cited:**
- 1. DcR2 (IMG-121-1): WB (human glioma cell lines), Fig 4B.**
2. DcR1 (IMG-245-1)

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