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DR4 Antibody

Catalog # ASC10021

Product Information

Application	WB, ICC, E
Primary Accession	O00220
Other Accession	AAC51226, 1945072
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	50089
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	DR4 antibody can be used for detection of DR4 expression by Western blot at 0.5 g/mL. Antibody can also be used for immunocytochemistry starting at 10 g/mL.

Additional Information

Gene ID	8797
Other Names	DR4 Antibody: DR4, APO2, CD261, TRAILR1, TRAILR-1, DR4, Tumor necrosis factor receptor superfamily member 10A, Death receptor 4, TRAIL receptor 1, tumor necrosis factor receptor superfamily, member 10a
Target/Specificity	TNFRSF10A;
Reconstitution & Storage	DR4 antibody can be stored at 4℃ for three months and -20℃, stable for up to 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.
Precautions	DR4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TNFRSF10A
Synonyms	APO2, DR4, TRAILR1
Function	Receptor for the cytotoxic ligand TNFSF10/TRAIL (PubMed: 26457518, PubMed:38532423). The adapter molecule FADD recruits caspase-8 to the activated receptor. The resulting death-inducing signaling complex (DISC) performs caspase-8 proteolytic activation which initiates the subsequent cascade of caspases (aspartate-specific cysteine proteases) mediating apoptosis (PubMed:19090789). Promotes the activation of NF-kappa-B

(PubMed:9430227).

Cellular Location	Cell membrane; Single-pass type I membrane protein. Membrane raft. Cytoplasm, cytosol. Note=Palmitoylation is required for association with membranes.
Tissue Location	Widely expressed. High levels are found in spleen, peripheral blood leukocytes, small intestine and thymus, but also in K- 562 erythroleukemia cells, MCF-7 breast carcinoma cells and activated T-cells

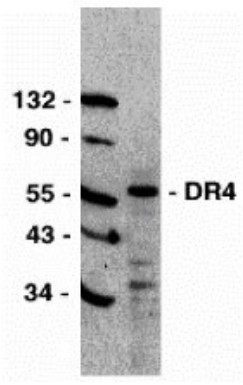
Background

DR4 Antibody: 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). The ligand for this novel death receptor has been identified and termed TRAIL2, 3, which is a new member in the TNF family. DR4 is also called TRAIL receptor-1 (TRAIL-R1). 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 NF-κB activation in many tissues and cells.

References

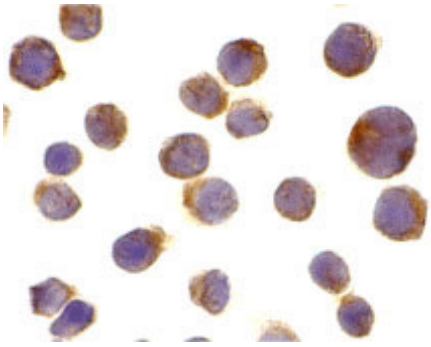
Pan G; O'Rourke K; Chinnaiyan AM; O'Rourke K; Gentz R; Ebner R; Ni J; Dixit VM. The receptor for the cytotoxic ligand TRAIL. Science; 1997;276:111-113
Wiley SR, Schooley K, Smolak PJ, Din WS, Huang CP, Nicholl JK, Sutherland GR, Smith TD, Rauch C, Smith CA, et al. Identification and characterization of a new member of the TNF family that induces apoptosis. Immunity 1995;3:673-682
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
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-κB. Immunity 1997;7:831-836 (RD1299)

Images



Western blot analysis of DR4 in HeLa total cell lysate with DR4 antibody at 0.5 µg/mL.

Immunocytochemistry of DR4 in Jurkat cells with DR4 antibody at 10 µg/mL.



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