

**DR4 Antibody**  
Catalog # ASC10021**Specification****DR4 Antibody - Product Information**

Application	WB, ICC
Primary Accession	<a href="#">O00220</a>
Other Accession	<a href="#">AAC51226</a> , <a href="#">8797</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	57 kDa KDa
Application Notes	DR4 antibody can be used for detection of DR4 expression by Western blot at 1 µg/mL. Antibody can also be used for immunocytochemistry starting at 10 µg/mL and immunohistochemistry starting at 5 µg/mL.

**DR4 Antibody - 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**

DR4 antibody was raised against a peptide corresponding to 19 amino acids near the carboxy terminus of human DR4 protein. The immunogen is located within the last 50 amino acids of DR4.

**Reconstitution & Storage**

DR4 antibody can be stored at 4°C for three months and -20°C, 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.

**DR4 Antibody - Protein Information**

Name TNFRSF10A

Synonyms APO2, DR4, TRAILR1

Function

Receptor for the cytotoxic ligand TNFSF10/TRAIL (PubMed:<a href="http://www.uniprot.org/citations/26457518" target="\_blank">26457518</a>, PubMed:<a href="http://www.uniprot.org/citations/38532423" target="\_blank">38532423</a>). 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:<a href="http://www.uniprot.org/citations/19090789" target="\_blank">19090789</a>). Promotes the activation of NF-kappa-B (PubMed:<a href="http://www.uniprot.org/citations/9430227" target="\_blank">9430227</a>).

#### Cellular Location

Cell membrane; Single-pass type I membrane protein. Membrane raft. Cytoplasm, cytosol. Note=Palmitoylation is required for association with membranes.

#### Tissue Location

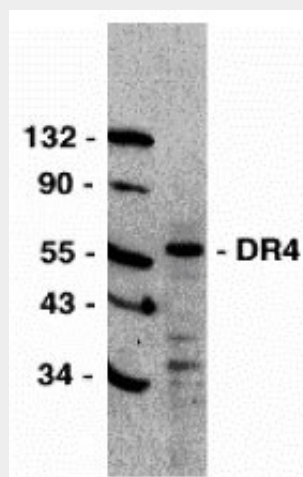
Widely expressed. High levels are found in spleen, peripheral blood leukocytes, small intestine and thymus, but also in K- 562 erythroleukemia cells, MCF-7 breast carcinoma cells and activated T-cells

#### DR4 Antibody - Protocols

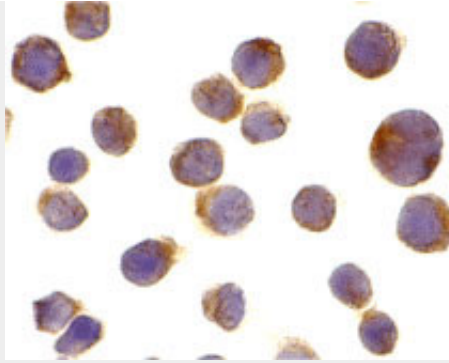
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### DR4 Antibody - 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.

### **DR4 Antibody - 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.

### **DR4 Antibody - 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)