

### **DR4 Antibody**

Catalog # ASC10032

# **Specification**

# **DR4 Antibody - Product Information**

Application WB, E
Primary Accession 000220

Other Accession <u>AAC51226</u>, <u>1945072</u>

Reactivity
Host
Clonality
Polyclonal
Isotype
Human
Rabbit
Polyclonal

Calculated MW 57 kDa KDa

Application Notes

DR4 antibody can be used for detection of DR4 by Western blot 0.5 µg/mL. A 57 kDa

band can be detected.

# **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

TNFRSF10A; DR4 antibody has no cross reaction to DR5.

## **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**

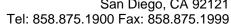
### Name TNFRSF10A

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**

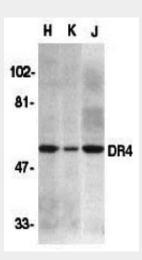
Widely expressed. High levels are found in spleen, peripheral blood leukocytes, small intestine and thymus, but also in K- 562 erythroleukemia cells, MCF-7 breast carcinoma cells and activated T-cells

## **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 Cytomety
- Cell Culture

## **DR4 Antibody - Images**



Western blot analysis of DR4 in HeLa (H), K562 (K), and Jurkat (J) whole cell lysate with DR4 antibody at 1:500 dilution.

# 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 TRAIL,





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-kB. Immunity 1997;7:831-836 (RD1299)