# Human DR6 / TNFRSF21 Protein

Catalog Number: 10175-HCCH



## **General Information**

### Gene Name Synonym:

BM-018: CD358: DR6

### **Protein Construction:**

The mature form of human DR6 (NP\_055267.1) extracellular domain (Met 1-Leu 350) with five amino acids (DDDDK) at the C-terminus was expressed and purified.

Source: Human

Expression Host: HEK293 Cells

**QC** Testing

Purity: > 95 % as determined by SDS-PAGE

**Endotoxin:** 

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt  $\,$  at -70  $\,$   $^{\circ}$ C

Predicted N terminal: Gln 42

#### **Molecular Mass:**

The recombinant human DR6 consists of 315 amino acids and predicts a molecular mass of 34.2 kDa. By SDS-PAGE under reducing conditions, the apparent molecular mass of rhDR6 is approximately 55-60 kDa due to the glycosylation.

#### Formulation:

Lyophilized from sterile 100mM NaCl, 50mM Tris, pH 7.5

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## **Usage Guide**

#### Storage:

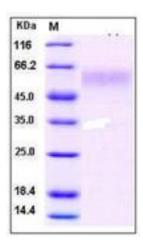
Store it under sterile conditions at -20  $^\circ\!\mathrm{C}$  to -80  $^\circ\!\mathrm{C}$  upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

#### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

#### SDS-PAGE:



# **Protein Description**

TNFRSF21 (death receptor-6, DR6) is an orphan TNF receptor superfamily member and belongs to a subgroup of receptors called death receptors. This type I transmembrane receptor possesses four extracellular cysteinerich motifs and a cytoplasmic death domain. DR6 is an extensively posttranslationally modified transmembrane protein and that N- and Oglycosylations of amino acids in its extracellular part. DR6 interacts with the adaptor protein TRADD and mediates signal transduction through its death domain, and expression of DR6 in mammalian cells induces activation of both NF-kappaB and JNK and cell apoptosis. DR6 knockout mice have enhanced CD4+ T cell proliferation and Th2 cytokine production, suggested that DR6 serves as an important regulatory molecule in T-helper cell activation, and is involved in inflammation and immune regulation. DR6 is expressed ubiquitously with high expression in lymphoid organs, heart, brain and pancreas. Some tumor cells overexpress DR6, typically in conjunction with elevated anti-apoptosis molecules. DR6 may also be involved in tumor cell survival and immune evasion, which is subject to future investigations.

## References

1.Pan G, et al. (1998) Identification and functional characterization of DR6, a novel death domain-containing TNF receptor. FEBS Lett. 431(3): 351-6. 2.Benschop R, et al. (2009) Tumor necrosis factor receptor superfamily member 21: TNFR-related death receptor-6, DR6. Adv Exp Med Biol. 647: 186-94. 3.Klma M, et al. (2009) Functional analysis of the posttranslational modifications of the death receptor 6. Biochim Biophys Acta. 1793(10): 1579-87.

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