Data Sheet (Cat.No.TMPY-00781)

TargetMol

DR6 Protein, Human, Recombinant

General Information

Synonyms:	CD358;BM-018;tumor necrosis factor receptor superfamily, member 21;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. Predicted N terminal: Gln 42
Species:	Human
Expression Host:	HEK293 Cells
Accession:	O75509
Molecular Weight:	34.2 kDa (predicted); 55-60 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 100 mM NaCl, 50 mM Tris, pH 7.5. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

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 cysteine-rich motifs and a cytoplasmic death domain. DR6 is an extensively posttranslationally modified transmembrane protein and that N- and O-glycosylations 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.

Reference

Pan G,et al.(1998) Identification and functional characterization of DR6, a novel death domain-containing TNF receptor. FEBS Lett. 431(3): 351-6.

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.

Klma M,et al.(2009) Functional analysis of the posttranslational modifications of the death receptor 6. Biochim Biophys Acta. 1793(10): 1579-87.