

DR6/TNFRSF21 Protein, Rat (HEK293, Fc)

Cat. No.:	HY-P75277
Synonyms:	Tumor necrosis factor receptor superfamily member 21; CD358; Tnfrsf21; DR6
Species:	Rat
Source:	HEK293
Accession:	D3ZF92 (Q42-H349)
Gene ID:	316256
Molecular Weight:	Approximately 95-115 kDa due to the glycosylation

PROPERTIES

AA Sequence	<p> Q P E Q K T L S L T G T Y R H V D R T T G Q V L T C D K C P A G T Y V S E H C T N T S L R V C S S C P S G T F T R H E N G I E R C H D C S Q P C P R P M I E R L P C A A L T D R E C I C P P G M Y Q S N G T C A P H T V C P V G W G V R K K G T E N E D V R C K Q C A R G T F S D V P S S V M K C R A H T D C L G Q N L M V V K Q G T K E T D N V C G V H L S S S S T T P S S P G I A T F S H P E H T E S H D V P S S T Y E P Q G M N S T D S N S T A S V R T K V P S D I Q E E T V P D N T S S T S G K E S T N R T L P N P P Q L T H Q Q G P H H R H I L K L L P S S M E A T G E K S S T A I K A P K R G H P R Q N P H K H F D I N E H </p>
Biological Activity	Measured by its binding ability in a functional ELISA. When Recombinant Human APP Protein is immobilized at 2 µg/mL (100 µL/well) can bind Recombinant Rat DR6/TNFRSF21 Protein. The ED ₅₀ for this effect is 98.85 ng/mL.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	DR6/TNFRSF21 protein plays a pivotal role in promoting apoptosis, potentially through a pathway involving the activation of
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NF-kappa-B. It can also facilitate apoptosis mediated by BAX and the release of cytochrome c from mitochondria into the cytoplasm. This protein is actively involved in neuronal apoptosis, responding to amyloid peptides derived from APP, and is crucial for normal cell body death and axonal pruning. Trophic-factor deprivation triggers the cleavage of surface APP by beta-secretase, releasing sAPP-beta, which binds TNFRSF21, subsequently activating caspases and inducing degeneration of both neuronal cell bodies (via caspase-3) and axons (via caspase-6). In addition to its role in neuronal processes, DR6/TNFRSF21 negatively regulates oligodendrocyte survival, maturation, and myelination. Furthermore, it plays a role in T-cell receptor-mediated signaling, adaptive immune responses, and the regulation of T-cell differentiation and proliferation, exhibiting negative regulatory effects on cytokine release and antibody production. Additionally, DR6/TNFRSF21 acts as a regulator of pyroptosis by recruiting CASP8 in response to reactive oxygen species, leading to the activation of GSDMC. It interacts with TRADD, NGFR, CASP8, and N-APP in the intricate network of its molecular functions.

Caution: Product has not been fully validated for medical applications. For research use only.

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