

Fas/CD95 Protein, Human (HEK293, His)

Cat. No.:	HY-P70329
Synonyms:	rHuTumor necrosis factor receptor superfamily member 6/TNFRSF6, His; Tumor necrosis factor receptor superfamily member 6; Apo-1 antigen; Apoptosis-mediating surface antigen FAS; FASLG receptor; APT1; FAS1; TNFRSF6 and FAS
Species:	Human
Source:	HEK293
Accession:	P25445 (Q26-N173)
Gene ID:	355
Molecular Weight:	22-35 kDa

PROPERTIES

AA Sequence	<div>Q V T D I N S K G L E L R K T V T T V E T Q N L E G L H H D G Q F C H K P C P P</div> <div>G E R K A R D C T V N G D E P D C V P C Q E G K E Y T D K A H F S S K C R R C R</div> <div>L C D E G H G L E V E I N C T R T Q N T K C R C K P N F F C N S T V C E H C D P</div> <div>C T K C E H G I I K E C T L T S N T K C K E E G S R S N</div>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20 mM PB, 150 mM NaCl, 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	<p>Fas receptor is the receptor for TNFSF6/FASLG, also known as apoptosis-mediating surface antigen FAS and Apo-1 antigen. It is a cell-surface protein that mediates apoptosis upon ligation with Fas ligand. Fas receptor belongs to tumor necrosis factor receptor superfamily, there are 7 isoforms produced by alternative splicing, some of which are candidates for nonsense-mediated mRNA decay (NMD). The Fas gene is expressed in several tissues in human and mouse, including thymus, spleen, ovary and heart, and on a number of cell types, including activated T- and B-lymphocytes. Isoform 1 and isoform 6 are expressed at equal levels in resting peripheral blood mononuclear cells. After activation there is an increase in isoform 1 and decrease in the levels of isoform 6^[1]. Fas receptor contains a death domain. It has been shown to play a central role in the physiological regulation of programmed cell death, and has been implicated in the pathogenesis of</p>
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various malignancies and diseases of the immune system. It interacts with its ligand to allow the formation of a death-inducing signaling complex that includes Fas-associated death domain protein (FADD), caspase 8, and caspase 10^[2]. To be specific, the autoproteolytic processing of the caspase in the complex triggers a downstream caspase cascade, including activation of the acidic sphingomyelinase, consumption of sphingomyelin, release of ceramide, and subsequent activation of JNK and p38-K. Thus, Fas receptor acts function via caspase's regulation and leads to apoptosis^[3]. Moreover, the signaling initiated from Fas is mediated by mitogen activated protein kinases (MAPKs) including extracellular-signal-regulated kinase (ERK) and c-Jun N-terminal kinase (JNK) which induce subsequent activation of NF-κB. Meanwhile, stimulation of Fas induced the expression of pro-inflammatory mediators such as matrix metalloproteinase (MMP)-9 and IL-8^[4]. The amino acid sequence of human Fas protein has low homology with that of rat and mouse, and the similarity rate is 49.54% and 48.93%, respectively.

REFERENCES

- [1]. Liu C, et al. Differential expression of human Fas mRNA species upon peripheral blood mononuclear cell activation. *Biochem J.* 1995 Sep 15;310 (Pt 3)(Pt 3):957-63.
- [2]. Sreaton RA, et al. Fas-associated death domain protein interacts with methyl-CpG binding domain protein 4: a potential link between genome surveillance and apoptosis. *Proc Natl Acad Sci U S A.* 2003 Apr 29;100(9):5211-6.
- [3]. Brenner B, et al. Fas/CD95/Apo-1 activates the acidic sphingomyelinase via caspases. *Cell Death Differ.* 1998 Jan;5(1):29-37.
- [4]. Lee SM, et al. Stimulation of Fas (CD95) induces production of pro-inflammatory mediators through ERK/JNK-dependent activation of NF-κB in THP-1 cells. *Cell Immunol.* 2011;271(1):157-62.
- [5]. Park DR, et al. Fas (CD95) induces proinflammatory cytokine responses by human monocytes and monocyte-derived macrophages. *J Immunol.* 2003 Jun 15;170(12):6209-16.

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

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