

Active Recombinant Human IFNAR1 Protein

Cat. No. IFNAR1-11H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human IFNAR1 (Gly26-Lys436) protein without tag was expressed in mouse myeloma cell line.
Species	Human
Source	Myeloma cells
ProteinLength	26-436 a.a.
Description	Interferon-alpha/beta receptor 1 (IFN- alpha / beta R1), also known as IFNAR1, is a 100-130 kDa member of the class II cytokine receptor family of proteins. These proteins form heterodimeric receptor complexes that mediate class II cytokine signals. Subunits of the different receptor complexes are shared and serve multiple functions. IFN- alpha / beta R1, in association with IFN- alpha / beta R2, is required for propagating anti-microbial signal transduction triggered by the type 1 interferons such as IFN- alpha and IFN- beta. Mature human IFN- alpha / beta R1 consists of a 409 aa extracellular domain (ECD), a 21 aa transmembrane segment, and a 100 aa cytoplasmic domain. The ECD contains three tandem fibronectin type III repeats and is extensively glycosylated. Within the ECD, human IFN- alpha / beta R1 shares 47% and 50% aa identity with mouse and rat IFN- alpha / beta R1, respectively. Alternative splicing generates two additional isoforms that lack the transmembrane segment and either all or a portion of the cytoplasmic domain. IFN- alpha / beta R1 interacts very weakly or not at all with type 1 interferons and does not stably interact with IFN- alpha / beta R2. Ligands

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preferentially associate with IFN- alpha / beta R2, and this complex subsequently forms a stable ternary assembly with IFN- alpha / beta R1. IFN- alpha / beta R1 also associates with IFN- gamma R2 even in the absence of IFN- gamma stimulation. IFN- alpha / beta R1 activation depends on tyrosine phosphorylation as well as palmitoylation of its cytoplasmic domain. Rapid down-regulation of the receptor is accomplished by ligand-dependent or -independent pathways (e.g. VEGF R signaling, TLR signaling, or cellular stress) which induce its serine phosphorylation, ubiquitination, and degradation.

Predicted N Terminal	Gly26
Bio-activity	Measured by its binding ability in a functional ELISA. When Recombinant Human IFN-alpha / beta R1 is present at 1 µg/mL, it binds to Recombinant Human IFN- alpha / beta R2 Fc Chimera in the presence of recombinant human IFN-alpha / beta. The concentration of Recombinant Human IFN-alpha / beta R2 Fc Chimera that produces 50% of the optimal binding response is approximately 0.5-1.5 µg/mL.
Molecular Mass	47.2 kDa
Endotoxin	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95% by SDS-PAGE under reducing conditions and visualized by silver stain.
Storage	Avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Storage Buffer	Lyophilized from a 0.2 µm filtered solution in PBS.

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Reconstitution	Reconstitute at 100 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
GENE INFORMATION	
Gene Name	IFNAR1
Official Symbol	IFNAR1 interferon alpha and beta receptor subunit 1 [Homo sapiens (human)]
Synonyms	alpha-type antiviral protein; AVP; beta-type antiviral protein; CRF2-1; Cytokine receptor class-II member 1; Cytokine receptor family 2 member 1; human interferon-alpha receptor (HuIFN-alpha-Rec)10IFRC; IFN-alpha/beta R1; IFN-alpha/beta receptor 1; IFN-alpha-REC; IFNAR; IFNAR1; IFN-aR1; IFNBR; IFNbR1; IFN-bR1; IFN-R-1; interferon (alpha, beta and omega) receptor 1; interferon alpha/beta receptor 1; interferon-alpha/beta receptor alpha chain; interferon-beta receptor 1; Type I interferon receptor 1; AVP; IFRC; IFNAR; IFNBR; IFN-alpha-REC
Gene ID	3454
mRNA Refseq	NM_000629
Protein Refseq	NP_00062
MIM	107450
UniProt ID	P17181