

Interferon Receptor alpha Antibody

Rabbit mAb Catalog # AP91164

Product Information

ApplicationWBPrimary AccessionP17181ReactivityHumanClonalityMonoclonal

Other Names AVP; IFN alpha REC; IFNAR1; IFNBR; IFRC; interferon (alpha beta and omega)

receptor 1;

IsotypeRabbit IgGHostRabbitCalculated MW63525

Additional Information

Dilution WB 1:500~1:2000 **Purification** Affinity-chromatography

ImmunogenA synthesized peptide derived from human Interferon Receptor alphaDescriptionInterferon Receptor alpha (IFN-a R1) is a class II cytokine receptor which

belongs to type I human interferons (IFNs) family. IFNs plays a role in antiviral, antiproliferative, immunomodulatory, antitumor, and antiparasitic activities by inducing transcription of IFN-stimuated genes (ISGs) through

activation of the Jak-STAT pathway.

Storage Condition and Buffer Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium

azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term.

Avoid freeze / thaw cycle.

Protein Information

Name IFNAR1

Synonyms IFNAR

Function Together with IFNAR2, forms the heterodimeric receptor for type I

interferons (including interferons alpha, beta, epsilon, omega and kappa)

(PubMed: 10049744, PubMed: 14532120, PubMed: 15337770,

PubMed:<u>2153461</u>, PubMed:<u>21854986</u>, PubMed:<u>24075985</u>, PubMed:<u>31270247</u>, PubMed:<u>33252644</u>, PubMed:<u>35442418</u>, PubMed:<u>7813427</u>). Type I interferon binding activates the JAK-STAT signaling cascade, resulting in transcriptional activation or repression of interferon-regulated genes that encode the effectors of the interferon response (PubMed:<u>10049744</u>, PubMed:<u>21854986</u>, PubMed:<u>7665574</u>). Mechanistically, type I interferon- binding brings the IFNAR1 and IFNAR2 subunits into close proximity with one another, driving their associated Janus kinases (JAKs) (TYK2 bound to IFNAR1 and JAK1 bound

to IFNAR2) to cross-phosphorylate one another (PubMed:21854986, PubMed:32972995, PubMed:7665574, PubMed:7813427). The activated kinases phosphorylate specific tyrosine residues on the intracellular domains of IFNAR1 and IFNAR2, forming docking sites for the STAT transcription factors (PubMed:21854986, PubMed:32972995, PubMed:7526154, PubMed:7665574, PubMed:7813427). STAT proteins are then phosphorylated by the JAKs, promoting their translocation into the nucleus to regulate expression of interferon-regulated genes (PubMed:19561067, PubMed:21854986, PubMed:32972995, PubMed:7665574, PubMed:7813427, PubMed:9121453). Can also act independently of IFNAR2: form an active IFNB1 receptor by itself and activate a signaling cascade that does not involve activation of the JAK-STAT pathway (By similarity).

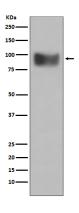
Cellular Location

[Isoform 1]: Cell membrane; Single-pass type I membrane protein. Late endosome. Lysosome. Note=Interferon binding triggers internalization of the receptor from the cell membrane into endosomes and then into lysosomes.

Tissue Location

IFN receptors are present in all tissues and even on the surface of most IFN-resistant cells. Isoform 1, isoform 2 and isoform 3 are expressed in the IFN-alpha sensitive myeloma cell line U266B1. Isoform 2 and isoform 3 are expressed in the IFN-alpha resistant myeloma cell line U266R. Isoform 1 is not expressed in IFN- alpha resistant myeloma cell line U266R.

Images



Western blot analysis of Interferon Receptor alpha expression in SH-SY5Y cell lysate.

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