

Interferon alpha/beta Receptor 1 Rabbit mAb

Catalog # AP75627

Product Information

Application WB, IP P17181 **Primary Accession** Reactivity Human Host Rabbit

Clonality Monoclonal Antibody

Calculated MW 63525

Additional Information

Gene ID 3454

Other Names IFNAR1

Dilution WB~~1/500-1/1000 IP~~N/A

Format 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and

0.05% BSA.

Storage Store at 4°C short term. Aliquot and store at -20°C long term. Avoid

freeze/thaw cycles.

Protein Information

IFNAR1 Name

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:33252644, PubMed:35442418, PubMed:7813427). 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: 10049744, PubMed: 21854986, PubMed: 7665574). 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:<u>7665574</u>, PubMed:<u>7813427</u>). STAT proteins are then phosphorylated by the JAKs, promoting their translocation into the nucleus to regulate expression of interferon-regulated genes (PubMed:<u>19561067</u>, PubMed:<u>21854986</u>, PubMed:<u>32972995</u>, PubMed:<u>7665574</u>, PubMed:<u>7813427</u>, PubMed:<u>9121453</u>). 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).

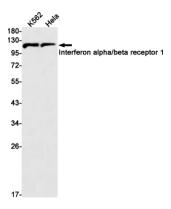
Cellular Location

[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



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