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IFNAR1 Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP8550c

Specification

IFNAR1 Antibody (Center) Blocking Peptide - Product Information

Primary Accession P17181

IFNAR1 Antibody (Center) Blocking Peptide - Additional Information

Gene ID 3454

Other Names
Interferon alpha/beta receptor 1, IFN-R-1, IFN-alpha/beta receptor 1, Cytokine receptor class-II member 1, Cytokine receptor family 2 member 1, CRF2-1, Type I interferon receptor 1, IFNAR1, IFNAR

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP8550c was selected from the Center region of human IFNAR1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

IFNAR1 Antibody (Center) Blocking Peptide - 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:2153461, PubMed:7813427, PubMed:10049744, PubMed:14532120, PubMed:15337770, PubMed:24075985, PubMed:<a

href="http://www.uniprot.org/citations/21854986" target="_blank">21854986, PubMed:31270247, PubMed:33252644, PubMed:35442418). 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:7665574, PubMed:10049744, PubMed:21854986). 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:7813427, PubMed:7665574, PubMed:21854986, PubMed:32972995). The activated kinases phosphorylate specific tyrosine residues on the intracellular domains of IFNAR1 and IFNAR2, forming docking sites for the STAT transcription factors (PubMed:7813427, PubMed:7526154, PubMed:7665574, PubMed:21854986, PubMed:32972995). STAT proteins are then phosphorylated by the JAKs, promoting their translocation into the nucleus to regulate expression of interferon-regulated genes (PubMed:7813427, PubMed:7665574, PubMed:9121453, PubMed:19561067, PubMed:21854986, PubMed:32972995). 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.

IFNAR1 Antibody (Center) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

IFNAR1 Antibody (Center) Blocking Peptide - Images

IFNAR1 Antibody (Center) Blocking Peptide - Background

IFNAR1 is the receptor for interferons alpha and beta. Binding to type I IFNs triggers tyrosine phosphorylation of a number of proteins including JAKs, TYK2, STAT proteins and IFNR alpha-and

beta-subunits themselves.