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Anti-IFNAR1 Reference Antibody (anifrolumab)

Recombinant Antibody
Catalog # APR10158

Product Information

Application	Functional assay, Kinetics (SPR), Kinetics (BLI), FACS, E, FTA
Primary Accession	P17181
Reactivity	Cynomolgus, Human
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	63525

Additional Information

Target/Specificity	IFNAR1
Endotoxin	
Conjugation	Unconjugated
Expression system	CHO
Format	Purified monoclonal antibody supplied in PBS, pH6.0, without preservative.This antibody is purified through a protein A column.

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:2153461, PubMed:21854986, PubMed:24075985, PubMed:31270247, 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: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).

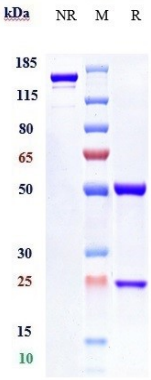
Cellular Location

[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.

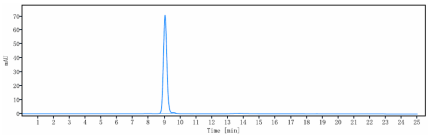
Tissue Location

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.

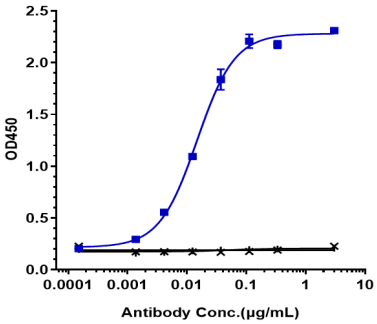
Images



Anti-IFNAR1 Reference Antibody (anifrolumab) on SDS-PAGE under reducing (R) condition. The purity of the protein is greater than 95%.



The purity of Anti-IFNAR1 Reference Antibody (anifrolumab) is 98.75%, determined by SEC-HPLC.



Immobilized human IFNAR1, Fc at 2 ug/mL can bind Anti-IFNAR1 Reference Antibody (anifrolumab), EC50=0.0147 ug/mL.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.