

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                                                       |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                                                 |
| <b>Specificity</b>        | Detects human IFN- $\alpha$ / $\beta$ R2 C-Terminus in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human (rh) IFN- $\alpha$ / $\beta$ R2a, rhIFN- $\alpha$ / $\beta$ R $\alpha$ , and recombinant mouse IFN- $\alpha$ / $\beta$ R2 is observed. |
| <b>Source</b>             | Polyclonal Sheep IgG                                                                                                                                                                                                                                                                                  |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                                             |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human IFN- $\alpha$ / $\beta$ R2 C-Terminus<br>Ser351-Met514<br>Accession # P48551                                                                                                                                                                                |
| <b>Conjugate</b>          | Alexa Fluor 700<br>Excitation Wavelength: 675-700 nm<br>Emission Wavelength: 723 nm                                                                                                                                                                                                                   |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.                           |

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

**Western Blot** Optimal dilution of this antibody should be experimentally determined.

## PREPARATION AND STORAGE

**Shipping** The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage** Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

## BACKGROUND

IFN- $\alpha$ / $\beta$ R2 (Interferon alpha/beta receptor 2/IFNAR2; also IFN $\alpha$  binding protein) is a 90-102 kDa member of the class II cytokine receptor family of molecules. It is expressed on hematopoietic cells, including T cells, NK cells, B cells and monocytes. It serves as a ligand binding subunit for type I IFN, and generates a functional IFN receptor by complexing with 125 kDa IFNAR1. Multiple type I IFNs signal through this heterodimeric receptor with distinct outcomes. This may be attributable to unique structural conformations created by the Type I IFN:IFNAR1 interaction, or the use of a truncated isoform of IFNAR2. Mature human IFNAR2 is a 489 amino acid (aa) type I transmembrane glycoprotein (aa 27-515). It contains a 217 aa extracellular region (aa 27-243) that contains an Ig-like domain (aa 39-118), a fibronectin type III domain, and a 251 aa cytoplasmic tail. There are two isoform variants. The first is 50-55 kDa in size and contains a 51 aa substitution for aa 281-515. The second is a 40 kDa soluble form that shows a two aa substitution for aa 238-515. IFNAR2 also undergoes proteolysis. Cleavage of the 92 kDa isoform generates a 58 kDa membrane-embedded stub that can be further cleaved into 27-35 kDa fragments that undergo nuclear translocation. Over aa 351-514, human IFNAR2 shares 48% aa identity with mouse IFNAR2.

## PRODUCT SPECIFIC NOTICES

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