

#### DESCRIPTION

|                                                                                                                                                                                                         |                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Mouse                                                                                             |
| <b>Specificity</b>                                                                                                                                                                                      | Detects mouse IFN-β in direct ELISAs.                                                             |
| <b>Source</b>                                                                                                                                                                                           | Monoclonal Rabbit IgG Clone # 1176D                                                               |
| <b>Purification</b>                                                                                                                                                                                     | Protein A or G purified from cell culture supernatant                                             |
| <b>Immunogen</b>                                                                                                                                                                                        | Human embryonic kidney cell line HEK293-derived mouse IFN-β<br>Ile22-Asn182<br>Accession # P01575 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 750<br>Excitation Wavelength: 749 nm<br>Emission Wavelength: 775 nm                   |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide                                      |
| *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.

**Neutralization** Optimal dilution of this antibody should be experimentally determined.

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### BACKGROUND

Interferon beta (IFN-β), also known as fibroblast IFN, is a secreted, approximately 22 kDa member of the type I interferon family of molecules (1). Mature mouse IFN-β shares 75% and 47% amino acid sequence identity with the rat and human proteins, respectively. Fibroblasts are the major producers of IFN-β, but it can also be produced by dendritic cells, macrophages, and endothelial cells in response to pathogens (2). It is transcriptionally regulated by TRAF3, IRF3, IRF7, and NF-κB (3, 4). IFN-β-deficient mice show increased susceptibility to experimental autoimmune encephalomyelitis (EAE), a disease model of human multiple sclerosis (MS) (5). Furthermore, IFN-β has been shown to suppress the Th17 cell response in both MS and EAE and has commonly been used as a treatment for MS (6-10). IFN-β can additionally induce the expression of the anti-inflammatory cytokine IL-10 (11).

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