Mouse IL-28A/IFN-λ2 Alexa Fluor® 700-conjugated Antibody

Monoclonal Rat IgG_{2B} Clone # 625616

Catalog Number: FAB4635N

100 µg

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse IL-28A/IFN-λ2 in direct ELISAs. In direct ELISAs, approximately 50% cross-reactivity with recombinant mouse IL-28B and no cross-reactivity with recombinant human (rh) IL-28A, rhIL-28B, or rhIL-29 is observed.
Source	Monoclonal Rat IgG_{2B} Clone # 625616
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse IL-28A/IFN-λ2 Asp20-Val193 Accession # NP_001019844
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	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

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

IL-28A (also named interferon-λ2, IFN-λ2), IL-28B (IFN-λ3) and IL-29 (IFN-λ1) are type III interferons that are class II cytokine receptor ligands (1-4). They are distantly related to members of the IL-10 family and type I IFN family (1-4). Mouse IL-28A cDNA encodes a 193 amino acid (aa) protein with a 19 aa signal peptide and a 174 aa mature protein that lacks N-glycosylation sites. Mature mouse IL-28A shares 81% and 66% aa sequence identity with rat and human IL-28A, respectively, and functions across species (5). Mouse IL-28A and IL-28B share 97% aa identity; the mouse lacks a functional IL-29 gene (4). Type III interferons are widely expressed, but are mainly produced by antigen presenting cells in response to viruses and double-stranded RNA that interact with Toll-like receptors or RIG-1 family helicases (2-6). They signal through a widely expressed receptor that is a heterodimer of the IL-10 receptor β (IL-10 Rβ) and IL-28 receptor α (IL-28 Rα; also called IFN-λ R1) (2, 3, 7, 9). Interaction of either type I or type III IFNs with their receptors activates similar pathways, including JAK tyrosine kinase activation, STAT phosphorylation and formation of the IFN-stimulated regulatory factor 3 (ISGF-3) transcription factor complex (1-3). Both type I and III IFNs induce antiviral activity and upregulate MHC class I antigen expression (2-6). Cell lines responsive to type III IFNs are also responsive to type I IFNs, but in general, higher concentrations of type III IFNs are needed for similar *in vitro* responses (8). *In vivo*, however, type III IFNs enhance levels of IFN-γ in serum, suggesting that the robust antiviral activity of type III IFNs may stem in part from activation of the immune system (5, 7). Anti-proliferative and antitumor activity *in vivo* has also been shown for type III IFNs (9-11).

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