Mouse IL-22 Rα1 Alexa Fluor® 532-conjugated Antibody

Monoclonal Rat IgG_{2A} Clone # 496504

Catalog Number: FAB4294X

100 µg

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse IL-22 Rα1 in direct ELISAs and Western blots. Shows approximately 20% cross-reactivity with recombinant human (rh) IL-22 R and no cross-reactivity with rhIL-20 Rα, rhIL-20 Rβ, or recombinant mouse IL-22BP.
Source	Monoclonal Rat IgG_{2A} Clone # 496504
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse IL-22 Rα1 Thr18-Ala228 Accession # Q80XZ4
Conjugate	Alexa Fluor 532 Excitation Wavelength: 534 nm Emission Wavelength: 553 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.*

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

The IL-22 receptor, also known as IL-22 Rα1 and CRF2-9, is an approximately 65 kDa type I transmembrane glycoprotein that belongs to the type II cytokine receptor family (CRF). IL-22 Rα1 contains a 211 amino acid (aa) extracellular domain (ECD) with two fibronectin type III repeats, and a 330 aa cytoplasmic domain (1). Within the ECD, mouse IL-22 Rα1 shares 78%, 78%, and 94% aa sequence identity with canine, human, and rat IL-22 Rα1, respectively. It shares 20% - 26% aa sequence identity with the ECDs of other class II receptors IL-10 R, IL-20 R, and IL-28 R. IL-22 Rα1 associates with either IL-10 Rβ or IL-20 Rβ to form receptor complexes with distinct ligand selectivities. IL-10 Rβ is a shared subunit of the IL-10, -22, -26, -28, and -29 receptors, while IL-20 Rβ is a shared subunit of the IL-19, -20, -22, and -24 receptors (2). IL-22 Rα1/IL-10 Rβ is an IL-22 responsive receptor (3, 4), and IL-22 Rα1/IL-20 Rβ is an IL-20 or IL-24 responsive receptor (5, 6). In both cases, IL-22 Rα1 functions as the high affinity ligand binding subunit, and subsequent association with IL-10 Rβ or IL-20 Rβ serves to stabilize the complex (3, 6 - 9). IL-22 Rα1 contains cytoplasmic motifs for interactions with signal transduction molecules, but association with IL-10 Rβ or IL-20 Rβ is required for signal transduction (3, 7). IL-22BP functions as a competitive antagonist by binding IL-22 and preventing its association with IL-22 Rα1 (8, 10). Even though it is a receptor for interleukins, IL-22 Rα1 is not expressed on hematopoietic cells (7, 11, 12). Instead, IL-22 Rα1 expression is restricted to epithelial and stromal cells (7, 11 - 14). IL-22 Rα1 signaling promotes innate immune responses and wound healing at sites of infection and inflammation. This includes upregulation of antimicrobial, acute phase, proinflammatory, and extracellular matrix proteins as well as proteases (4, 12, 14, 15). IL-22 Rα1 signaling also promotes downregulation of proteins involved in keratinocyte differentiation (4, 15).

PRODUCT SPECIFIC NOTICES

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