

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-28 R α in direct ELISAs and Western blots. In direct ELISAs, approximately 5% cross-reactivity with recombinant mouse IL-28 R α is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human IL-28 R α /IFN- λ R1 Arg21-Ala228 Accession # Q8IU57
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 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.

CyTOF-ready	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.
Flow Cytometry	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-28 R α (IL-28 receptor alpha subunit; also named interferon- λ R1) is a type I transmembrane glycoprotein that is the cytokine receptor family 2 member 12 (CRF2-12) (1-4). It pairs with the IL-10 receptor β subunit (IL-10 R β , CRF2-4) to form the IL-28 R (1-4). Each subunit of this receptor can interact with the interferon-like cytokines (type III interferons) IL-28A (IFN- λ 2), IL-28B (IFN- λ 3) or IL-29 (IFN- λ 1) (1-4). Human IL-28 R α cDNA encodes a 520 amino acid (aa) protein with a 20 aa signal peptide, a 208 aa extracellular domain (ECD) with a fibronectin type III motif and four potential N-glycosylation sites, a 21 aa transmembrane sequence, and a proline-rich and acidic 271 aa cytoplasmic domain. Eight isoforms have been sequenced, but their significance is unknown (3, 5). Isoforms of 211 and 244 aa appear to lack transmembrane sequences. These and other isoforms of 491, 437, 322, 283 and 184 aa have alternate N- or C-termini, or lack an internal sequence (aa 268-296). The mature human IL-28 R α ECD shares 67%, 66%, 78% and 74% aa sequence identity with mouse, rat, canine and bovine IL-28 R α , respectively. Some cross-species reactivity has been shown (6). IL-28 R is constitutively expressed in most tissues, but its ligands are mainly produced by antigen presenting cells in response to viruses and their products (2-6). Signaling through IL-28 R α is similar to that of receptors for type I IFNs, including tyrosine phosphorylation, activation of JAK tyrosine kinases, STAT phosphorylation and formation of the IFN-stimulated gene factor 3 (ISGF-3) transcription factor complex (1-7). This signaling pathway induces antiviral activity and up-regulates MHC class I antigen expression (2-7). Anti-proliferative activity has also been shown for IL-28/IL-28 R (7).

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.