

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human PILR-α in direct ELISAs and Western blots. No cross-reactivity with recombinant human PILR-β, recombinant mouse (rm) PILR-α, or rmPILR-β is observed.
Source	Monoclonal Mouse IgG _{2A} Clone # 462415
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human PILR-α Gln20-Thr196 (predicted) Accession # Q9UKJ1
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.

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

Paired immunoglobulin-like type 2 receptor alpha (PILRa; also inhibitory receptor PILR-alpha) are 44-50 kDa paired receptors that consist of highly related activating and inhibitory receptors, and are widely involved in the regulation of the immune system. PILR-α is thought to act as a cellular signaling inhibitory receptor by recruiting cytoplasmic phosphatases like PTPN6/SHP-1 and PTPN11/SHP-2 via their SH2 domains that block signal transduction through dephosphorylation of signaling molecules. Human PILR-α is synthesized as a 303 amino acid (aa) precursor that contains a 19 aa signal sequence, a 178 aa extracellular domain (ECD), a 21 aa transmembrane segment, and an 85 aa cytoplasmic domain. The ECD contains one Ig-like V-type domain and one potential site for N-linked glycosylation. The cytoplasmic domain contains two ITIM motifs (aa 267-272 and 296-301). Alternate splicing generates multiple shorter isoforms. One is TM and possesses a 35 aa substitution for aa 264-303, while others are soluble, and show a deletion of aa 152-224 that may be coupled to the 35 aa substitution noted above, or simply exhibit a 24 aa substitution for aa 152-303. Mature human PILR-α is 45% aa identical to mature mouse PILR-α. PILR-α is predominantly detected in hemopoietic tissues and is expressed in monocytes, macrophages, and granulocytes, but not lymphocytes. It is also strongly expressed by dendritic cells. PILR-α interacts with herpes simplex 1 glycoprotein B and functions as an entry coreceptor for this virus.

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.