

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 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 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

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