

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse IL-6R alpha in ELISAs and Western blots. In sandwich ELISAs, less than 0.3% cross-reactivity with recombinant mouse (rm) IL-6, recombinant human IL-6 R and rmgp130 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse IL-6R alpha Leu20-Glu357 Accession # P22272
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.

CyTOF-ready	Optimal dilution of this antibody should be experimentally determined.
ELISA Capture (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
ELISA Detection (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
Neutralization	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.
Immunohistochemistry	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

Interleukin 6 (IL-6) is a multifunctional cytokine that exerts its activities by binding to a high-affinity receptor complex consisting of two membrane glycoproteins: an 80 kDa ligand binding subunit (IL-6 Rα/CD126) and a 130 kDa nonligand-binding signal-transducing subunit (gp130/CD130) (1-4). The mouse IL-6 Rα cDNA encodes a precursor type I transmembrane protein of 460 amino acids (aa) that contains a 19 aa signal sequence, a 345 aa extracellular ligand binding domain, a 21 aa transmembrane region, and a 75 aa cytoplasmic segment (2). The extracellular segment contains an Ig-like and a fibronectin-type III domain, plus a membrane proximal WSXWS motif. In their extracellular regions, mouse IL-6 Rα shares 89%, 51% and 50% aa identity with rat, human and porcine IL-6 Rα, respectively. Unlike gp130 that is expressed ubiquitously, the cellular distribution of IL-6 Rα is predominantly limited to hepatocytes and leukocyte subpopulations such as monocytes, neutrophils, T and B cells. Soluble IL-6 Rα has been found in various body fluids (5). Two soluble receptor isoforms that arise either from proteolytic cleavage of the membrane-bound IL-6 Rα, or by alternative mRNA splicing (reported only in human) have been described (6, 7). Soluble IL-6 Rα binds IL-6 with an affinity similar to that of the membrane-bound IL-6 Rα. More importantly, the soluble IL-6 Rα/IL-6 complex is capable of interacting with the membrane-bound gp130 to activate cells that lack an integral membrane IL-6 Rα. It has been documented that elevated soluble IL-6 R is associated with numerous diseases including arthritic lesions, multiple myeloma and Crohn's disease (6, 7).

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