

DESCRIPTION

Species Reactivity	Rat
Specificity	Detects rat gp130 in direct ELISAs and Western blots. In direct ELISAs, approximately 45% cross-reactivity with recombinant mouse gp130 is observed, and less than 6% cross-reactivity with recombinant human gp130 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant rat gp130 Gln23-Glu618, predicted Accession # EDM10349
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

Glycoprotein 130 (gp130; also known as IL-6 signal transducer, IL-6 receptor beta, oncostatin-M alpha subunit) is a ubiquitously expressed, 130 kDa type I transmembrane glycoprotein and member of the type II subfamily, type I cytokine receptor family. Functionally, it is responsible for transduction of the IL-6 signal across the plasma membrane (1). Rat gp130 is synthesized as a 918 amino acid (aa) precursor with a 22 aa signal sequence, a 596 aa extracellular domain (ECD), a 22 aa transmembrane region, and a 278 aa cytoplasmic tail. Eleven potential N-linked glycosylation sites are found within the rat gp130 ECD (1). The ECD also contains an N terminal immunoglobulin (Ig)-like C2-type domain, followed by the cytokine receptor homology region (CHR) which is made up of two fibronectin type III-like domains and a WSXWS motif, and three additional fibronectin type III-like domains (2). The domains in the CHR are the structural hallmarks of the hematopoietic cytokine receptor family (2). Rat gp130 shares 88% and 79% aa sequence identity with mouse and human gp130, respectively. Gp130 serves as the signal transducing receptor subunit for the IL-6-type cytokines consisting of interleukin (IL)-6, IL-11, leukemia inhibitory factor (LIF), oncostatin M (OSM), ciliary neurotrophic factor (CNTF), new neurotrophin factor-1 (NNT-1), IL-27, cardiotrophin-1 (CT-1), and cardiotrophin like cytokine (CLC) (2 - 5). These cytokines are involved in a variety of functions including the modulation of inflammatory and immune responses, heart development, fertility, and many other activities (2).

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.