

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Rat                                                                                                                                                                                                                                                                         |
| <b>Specificity</b>        | 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.                                            |
| <b>Source</b>             | Polyclonal Sheep IgG                                                                                                                                                                                                                                                        |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant rat gp130<br>Gln23-Glu618, predicted<br>Accession # EDM10349                                                                                                                                                                |
| <b>Conjugate</b>          | Alexa Fluor 405<br>Excitation Wavelength: 405 nm<br>Emission Wavelength: 421 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*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

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