

Biotin anti-rat IL-6 Antibody

Catalog# / Size	517703 / 50 µg
Clone	Poly5177
Regulatory Status	RUO
Other Names	Interleukin-6 (IL-6), Interferon beta 2 (IFNB2), BSF2, HGF, HSF
Isotype	Goat Polyclonal IgG
Description	<p>Interleukin 6 (IL-6) is a prototypic member of the IL-6 superfamily of cytokines. IL-6 is secreted by a variety of lymphoid and non-lymphoid cells including T cells, B cells, monocytes, fibroblasts, hepatocytes, endothelial cells, keratinocytes, etc. Mature Rat IL-6 is a 187 aa residue protein. At the protein sequence level, there is approximately 39% identity between rat and human IL-6, and 87% identity between mouse and rat IL-6. The production of IL-6 can be induced by numerous signals such as mitogenic or antigenic stimulation, lipopolysaccharides, calcium ionophores, cytokines, and viruses.</p> <p>IL-6 induces signaling through a cell surface heterodimeric receptor complex composed of a ligand binding subunit (IL-6 R) and a subunit (gp130) that acts as the universal signal-transducing element for all IL-6 family cytokines. IL-6 activity is essential for the transition from acute inflammation to either acquired immunity or chronic inflammatory disease. One of the most important mechanisms is that IL-6 is a key factor that reciprocally regulates Th17 and Foxp3+ Treg differentiation by inhibition of TGF-β induced Foxp3 and induction of RORγt, a Th17 lineage-specific transcription factor.</p> <p>Elevated serum IL-6 levels have been observed in a number of pathological conditions, including bacterial and viral infections, trauma, autoimmune diseases, inflammations and malignancies.</p>

Product Details

Verified Reactivity	Rat
Antibody Type	Polyclonal
Host Species	Goat
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C. Do not freeze.
Application	ELISA Detection - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by ELISA assay . For sandwich ELISA detection applications, a concentration range of 0.1-0.2 µg/ml is recommended when used in conjunction with the purified Poly5177 antibody (Cat. No. 517701) as the detecting antibody. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	Poly5177 is 4.1% cross-reactive with mouse IL-6 as measured by ELISA.
Product Citations	1. Allen KD, <i>et al.</i> 2020. Connect Tissue Res. 61:82. PubMed
RRID	AB_2561416 (BioLegend Cat. No. 517703)

Antigen Details

Structure	187 amino acids (aa) in length, and 39% and 87% aa sequence identity with human and mouse IL-6, respectively.
Distribution	Secreted by a variety of lymphoid and non-lymphoid cells including T cells, B cells, monocytes, fibroblasts, hepatocytes, endothelial cells, keratinocytes and muscle cells, etc.
Function	A pleiotropic cytokine that plays important roles in innate and adaptive immunity. Also important for hematopoiesis, bone metabolism, and cancer progression.
Ligand/Receptor	IL-6 receptor
Cell Type	B cells, Dendritic cells
Biology Area	Angiogenesis, Cell Biology, Immunology, Innate Immunity
Molecular Family	Cytokines/Chemokines
Antigen References	<ol style="list-style-type: none"> 1. Heinrich PC, <i>et al.</i> 1990. <i>Biochem. J.</i> 265:621. 2. Hibi M, <i>et al.</i> 1996. <i>J. Mol. Med.</i> 74:1. 3. Hirano T, <i>et al.</i> 1994. <i>Stem Cells</i> 12:262. 4. Taga T and Kishimoto T. <i>et al.</i> 1997. <i>Annu. Rev. Immunol.</i> 15:797. 5. Van Snick J. 1990. <i>Annu. Rev. Immunol.</i> 8:253.
Regulation	Expression can be induced by numerous signals such as mitogenic or antigenic stimulation, lipopolysaccharides, calcium ionophores, cytokines, and viruses.
Gene ID	24498

Related Protocols

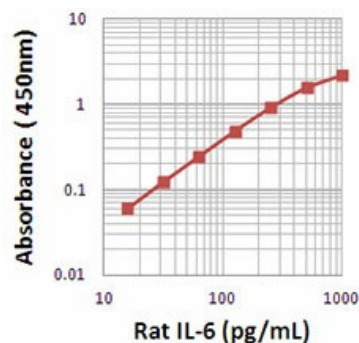
[Active Protocols: Sandwich ELISA - Video](#)

[Sandwich ELISA Protocol](#)

Other Formats

Purified anti-rat IL-6, Biotin anti-rat IL-6

Product Data



For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.

*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, www.biolegend.com/ordering#license). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587

