

Technical Data Sheet

Purified NA/LE Rat Anti-Human IL-6

Product Information

Material Number:	554541
Alternate Name:	IL6; Interleukin-6; BSF-2; CDF; HGF; HSF; IFNB2
Size:	0.5 mg
Concentration:	1.0 mg/ml
Clone:	MQ2-13A5
Immunogen:	Human IL-6 Recombinant Protein
Isotype:	Rat IgG1
Reactivity:	QC Testing: Human
Storage Buffer:	No azide/low endotoxin: Aqueous buffered solution containing no preservative, 0.2µm sterile filtered. Endotoxin level is ≤0.01 EU/µg (≤0.001 ng/µg) of protein as determined by the LAL assay.

Description

The MQ2-13A5 monoclonal antibody specifically binds to human interleukin-6 (IL-6). IL-6 is a multifunctional cytokine that plays a central role in host defense mechanisms, including hematopoiesis, immune responses (eg, T and B cell activation and differentiation) and acute phase reactions. IL-6 can be expressed by a variety of cells including monocytes/macrophages, eosinophils, fibroblasts, vascular endothelial cells, bone marrow stromal cells, mesangial cells, hepatocytes, keratinocytes, astrocytes, T lymphocytes, B lymphocytes, and various tumor cells. IL-6 production is upregulated by cells in response to bacterial products such as lipopolysaccharide, viruses and other pro-inflammatory cytokines such as IL-1, TNF, and IFN-γ. IL-6 transcription is downregulated by cells in response to IL-4 and IL-10. The functional IL-6 Receptor (IL-6R) complex consists of two transmembrane glycoproteins, an 80-kDa low-affinity ligand-binding receptor subunit (IL-6Rα/CD126) and a 130 kDa (gp130/CD130) subunit that binds to IL-6-IL-6Rα to form the high-affinity signal transducing complex. Abnormal expression of IL-6 is related to the pathogenesis of many diseases including neoplastic (eg, multiple myeloma) and autoimmune diseases (eg, rheumatoid arthritis). The immunogen used to generate this hybridoma was COS-7 -expressed recombinant human IL-6.

Preparation and Storage

Store undiluted at 4°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

This preparation contains no preservatives, thus it should be handled under aseptic conditions.

Application Notes

Application

ELISA	Routinely Tested
Neutralization	Tested During Development
Flow cytometry	Tested During Development

Neutralization Activity:

This antibody has been reported to be useful for the neutralization of recombinant human IL-6. Neutralization activity may be measured with a proliferation assay using 500 pg/mL recombinant human IL-6 (Cat. No. 550071) to stimulate TF-1 cells at 1x10⁵ cells/mL as indicator cells.

50% Neutralization (ND50) at 0.2 - 1.0 ng/mL

≥ 95 % Neutralization at 1.5 - 4.5 ng/mL

Suggested Companion Products

Catalog Number	Name	Size	Clone
554682	Purified NA/LE Rat IgG1 κ Isotype Control	0.5 mg	R3-34
550071	Recombinant Human IL-6	10 µg	(none)
555220	Human IL-6 ELISA Set	20 plates	(none)
550799	Human IL-6 ELISA Kit II	2 plates	(none)

Product Notices

- Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Gaines Das RE, Poole S. The international standard for interleukin-6. Evaluation in an international collaborative study. *J Immunol Methods*. 1993; 160(2):147-153. (Biology)

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