



# Anti-Human IL-6R alpha EC (#6M30)

20230310DS



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

<b>Cat.-no.:</b>	<b>101-M796</b>
Size:	100 µg
Lot. No.:	According to product label

**Preparation:** This antibody was produced from a hybridoma (mouse myeloma fused with spleen cells from a mouse immunized with human recombinant protein of IL-6R alpha extracellular domain).

## Target Background

Synonyms (Target):	
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Interleukin 6 (IL-6) is a pleiotropic  $\alpha$ -helical cytokine that plays important roles in acute phase reactions, inflammation, hematopoiesis, bone metabolism, and cancer progression. IL-6 activity is essential for the transition from acute inflammation to either acquired immunity or chronic inflammatory disease. It is secreted by multiple cell types as a 22 kDa-28 kDa phosphorylated and variably glycosylated molecule. Mature human IL6 is 183 amino acids (aa) in length and shares 41% aa sequence identity with mouse and rat IL-6. Alternate splicing generates several isoforms with internal deletions, some of which exhibit antagonistic properties. Human IL6 is equally active on mouse and rat cells. IL-6 induces signaling through a cell surface heterodimeric receptor complex composed of a ligand binding subunit (IL6 R) and a signal transducing subunit (gp130). IL-6 binds to IL-6 R, triggering IL-6 R association with gp130 and gp130 dimerization. Soluble forms of IL-6 R are generated by both alternate splicing and proteolytic cleavage. In a mechanism known as trans-signaling, complexes of soluble IL-6 and IL-6 R elicit responses from gp130expressing cells that lack cell surface IL-6 R. Trans-signaling enables a wider range of cell types to respond to IL-6, as the expression of gp130 is ubiquitous, while that of IL-6 R is predominantly restricted to hepatocytes, leukocytes, and lymphocytes. Soluble splice forms of gp130 block trans-signaling from IL-6/ IL-6 R but not from other cytokines that utilize gp130 as a co-receptor.

## Database References Target

Protein RefSeq:	NP_000591
Uniprot ID:	P05231
mRNA RefSeq:	NM_000600

## Product Specifications

Host	Mouse
Reactivity against	Human
Clonality	Monoclonal Antibody
Clone	(#6M30)
Isotype	IgG1
Purification	Protein G chromatography
Antigen	Human recombinant IL-6RalphaEC domain
Formulation	lyophilized
Reconstitution buffer	PBS

## Application/Handling

**Reconstitution:** Centrifuge vial prior to opening. Reconstitute the antibody with 500 µl sterile PBS and the final concentration is 200 µg/ml.

**Stability:** Lyophilized samples are stable for 2 years from date of receipt when stored at -70°C. Reconstituted antibody can be aliquoted and stored frozen at < -20°C for at least for six months without detectable loss of activity.



AVOID REPEATED FREEZE AND THAW CYCLES!

## Applications

The antibody can be used within the following applications:

WB, N/B

**NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!**