10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Phospho-IL6ST(Y905) Antibody Blocking peptide

Synthetic peptide
Catalog # BP3663a

Specification

Phospho-IL6ST(Y905) Antibody Blocking peptide - Product Information

Primary Accession	P40189

Phospho-IL6ST(Y905) Antibody Blocking peptide - Additional Information

Gene ID 3572

Other Names
Interleukin-6 receptor subunit beta, IL-6 receptor subunit beta, IL-6R subunit beta, IL-6R-beta, IL-6RB, CDw130, Interleukin-6 signal transducer, Membrane glycoprotein 130, gp130, Oncostatin-M receptor subunit alpha, CD130, IL6ST

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP3663a was selected from the region of human Phospho-IL6ST-Y905. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Phospho-IL6ST(Y905) Antibody Blocking peptide - Protein Information

Name IL6ST (HGNC:6021)

Function
Signal-transducing molecule (PubMed:2261637). The receptor systems for IL6, LIF, OSM, CNTF, IL11, CTF1 and BSF3 can utilize IL6ST for initiating signal transmission. Binding of IL6 to IL6R induces IL6ST homodimerization and formation of a high-affinity receptor complex, which activates the intracellular JAK-MAPK and JAK-STAT3 signaling pathways (PubMed:2261637, PubMed:19915009, PubMed:23294003). That causes phosphorylation of IL6ST tyrosine residues which in turn activates STAT3 (PubMed:19915009, PubMed:<a

href="http://www.uniprot.org/citations/23294003" target="_blank">23294003, PubMed:25731159). In parallel, the IL6 signaling pathway induces the expression of two cytokine receptor signaling inhibitors, SOCS1 and SOCS3, which inhibit JAK and terminate the activity of the IL6 signaling pathway as a negative feedback loop (By similarity). Also activates the yes- associated protein 1 (YAP) and NOTCH pathways to control inflammation- induced epithelial regeneration, independently of STAT3 (By similarity). Acts as a receptor for the neuroprotective peptide humanin as part of a complex with IL27RA/WSX1 and CNTFR (PubMed:19386761). Mediates signals which regulate immune response, hematopoiesis, pain control and bone metabolism (By similarity). Has a role in embryonic development (By similarity). Essential for survival of motor and sensory neurons and for differentiation of astrocytes (By similarity). Required for expression of TRPA1 in nociceptive neurons (By similarity). Required for the maintenance of PTH1R expression in the osteoblast lineage and for the stimulation of PTH-induced osteoblast differentiation (By similarity). Required for normal trabecular bone mass and cortical bone composition (By similarity).

Cellular Location
[Isoform 1]: Cell membrane; Single-pass type I membrane protein

Tissue Location
Found in all the tissues and cell lines examined (PubMed:2261637). Expression not restricted to IL6 responsive cells (PubMed:2261637).

Phospho-IL6ST(Y905) Antibody Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

Phospho-IL6ST(Y905) Antibody Blocking peptide - Images

Phospho-IL6ST(Y905) Antibody Blocking peptide - Background

IL6ST is a signal transducer shared by many cytokines, including interleukin 6 (IL6), ciliary neurotrophic factor (CNTF), leukemia inhibitory factor (LIF), and oncostatin M (OSM). This protein functions as a part of the cytokine receptor complex. The activation of this protein is dependent upon the binding of cytokines to their receptors. vIL6, a protein related to IL6 and encoded by the Kaposi sarcoma-associated herpesvirus, can bypass the interleukin 6 receptor (IL6R) and directly activate this protein.

Phospho-IL6ST(Y905) Antibody Blocking peptide - References

Lehmann,U., et.al., J. Biol. Chem. 278 (1), 661-671 (2003)Novotny-Diermayr,V., et.al., J. Biol. Chem. 277 (51), 49134-49142 (2002)