CD130 Rabbit pAb

Catalog#: A10721 | Size: 30μL/50μL/100μL

Main Information

Target	Host Species	Reactivity	Application	MW	Conjugated/Modification
CD130/gp130	Rabbit	Human, Mouse	WB, IHC, IF, ELISA	160kD (Observed)	Unmodified

Detailed Information

Recommeded Dilution Ratio	WB 1:500-1:2000; IHC 1:100-1:300; IF 1:200-1:1000; ELISA 1:20000; Not yet tested in other applications.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Specificity	CD130 Polyclonal Antibody detects endogenous levels of CD130 protein.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Storage	-15°C to -25°C/1 year(Do not lower than -25°C)
Concentration	1 mg/ml
MW(Observed)	160kD
Modification	Unmodified
Clonality	Polyclonal
Isotype	IgG

Antigen&Target Information

Immunogen	The antiserum was produced against synthesized peptide derived from human CD130/gp130. AA range:748-797
Specificity	CD130 Polyclonal Antibody detects endogenous levels of CD130 protein.
Gene Name	IL6ST
Protein Name	Interleukin-6 receptor subunit beta
Other Name	IL6ST ;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 ;CD antigen CD130

Database Link

Organism	Gene ID	SwissProt
Human	3572	P40189
Mouse	16195	Q00560

Background

The protein encoded by this gene 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. Knockout studies in mice suggest that this gene plays a critical role in regulating myocyte apoptosis. Alternatively spliced transcript variants have been described. A related pseudogene has been identified on chromosome 17. [provided by RefSeq, May 2014].

Function

Disease:Isoform 2 is an autoantigen found in rheumatoid arthritis (RA) but it is not specific to patients with RA.,Domain:The box 1 motif is required for JAK interaction and/or activation.,Domain:The WSXWS motif appears to be necessary for proper protein folding and thereby efficient intracellular transport and cell-surface receptor binding.,Function:Signal-transducing molecule. The receptor systems for IL6, LIF, OSM, CNTF, IL11, CTF1 and BSF3 can utilize gp130 for initiating signal transmission. Binds to IL6/IL6R (alpha chain) complex, resulting in the formation of high-affinity IL6 binding sites, and transduces the signal. Does not bind IL6. May have a role in embryonic development (By similarity). The type I OSM receptor is capable of transducing OSM-specific signaling events.,induction:Leukemia inhibitory factor (LIF) and Oncostatin-M (OSM) activate the type I OSM receptor while only OSM can activate the type II OSM receptor.,PTM:Heavily N-glycosylated.,PTM:Phosphorylation of Ser-782 down-regulates cell surface expression.,similarity:Belongs to the type I cytokine receptor family. Type 2 subfamily.,similarity:Contains 1 Ig-like C2-type (immunoglobulin-like) domain.,similarity:Contains 5 fibronectin type-III domains.,subunit:Interacts with INPP5D/SHIP1 (By similarity). Forms heterodimers composed of LIPR and IL6ST (type I OSM receptor). Also forms heterodimers composed of OSMR and IL6ST (type II OSM receptor). Homodimer. The homodimer binds two molecules of herpes virus IL6. Component of a hexamer of two molecules each of IL6, IL6R and IL6ST.,tissue specificity:Found in all the tissues and cell lines examined. Expression not restricted to IL6 responsive cells.

Cellular Localization

[Isoform 1]: Cell membrane ; Single-pass type I membrane protein .; [Isoform 2]: Secreted.

Tissue Expression

Found in all the tissues and cell lines examined (PubMed:2261637). Expression not restricted to IL6 responsive cells (PubMed:2261637). ; [Isoform 2]: Expressed in blood serum (at protein level) (PubMed:24629561).

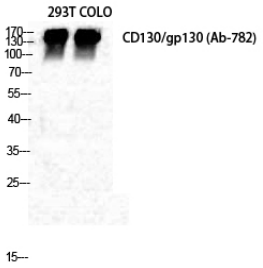
Research Areas

- Cytokine-cytokine receptor interaction
- Viral protein interaction with cytokine and cytokine receptor
- Signaling pathways regulating pluripotency of stem cells
- JAK-STAT signaling pathway
- Th17 cell differentiation
- Kaposi sarcoma-associated herpesvirus infection
- Coronavirus disease - COVID-19
- Pathways in cancer
- Viral carcinogenesis

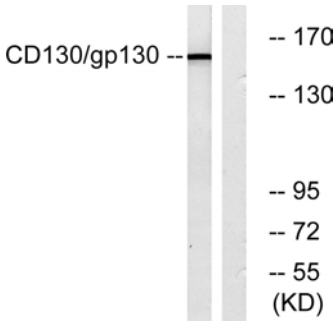
Signaling Pathway

Cellular Processes >> Cellular community - eukaryotes >> Signaling pathways regulating pluripotency of stem cells
Organismal Systems >> Immune system >> Th17 cell differentiation
Human Diseases >> Cancer: overview >> Pathways in cancer
Environmental Information Processing >> Signal transduction >> JAK-STAT signaling pathway
Environmental Information Processing >> Signaling molecules and interaction >> Cytokine-cytokine receptor interaction
Environmental Information Processing >> Signaling molecules and interaction >> Viral protein interaction with cytokine and cytokine receptor

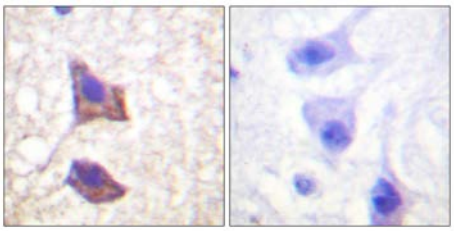
Validation Data



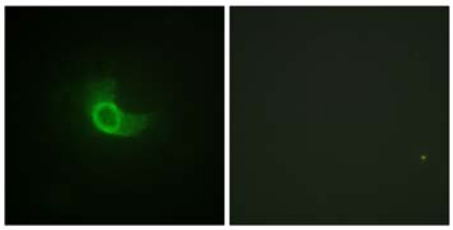
Western Blot analysis of 293T COLO cells using CD130 Polyclonal Antibody diluted at 1:500



Western blot analysis of lysates from Jurkat cells, using CD130/gp130 Antibody. The lane on the right is blocked with the synthesized peptide.



Immunohistochemistry analysis of paraffin-embedded human brain tissue, using CD130/gp130 Antibody. The picture on the right is blocked with the synthesized peptide.



Immunofluorescence analysis of NIH/3T3 cells, using CD130/gp130 Antibody. The picture on the right is blocked with the synthesized peptide.

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