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Anti-CD130 Antibody

Catalog # AP95888

Product Information

Application	WB, IHC, FC, IF/IC
Primary Accession	P40189
Reactivity	Human, Mk
Host	Mouse
Clonality	Monoclonal
Calculated MW	103537

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
Target/Specificity	Recombinant fusion protein of human CD130 expressed in E. Coli
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 FC~~FC (1/100 - 1/200) IF/IC~~N/A
Format	Mouse IgG1. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	IL6ST (HGNC:6021)
Function	Functions as a shared signal-transducing subunit not only for IL6 but also for other cytokine receptor complexes, including IL6, LIF, OSM, CNTF, IL11, CTF1, BSF3, MT-RNR2/humanin, CLCF1 and the heterodimeric complex CRLF1-CLCF1 (PubMed:11285233, PubMed:11294841, PubMed:1542794, PubMed:19386761, PubMed:2261637, PubMed:27384491, PubMed:36930708, PubMed:39532904, PubMed:8272873, PubMed:8999038, PubMed:9030543, PubMed:9188471). Engages site 2 of CNTF, CLCF1, LIF, and IL-6, and site 3 of IL27 and IL6 (PubMed:36930708). Initiates signal transmission through three mechanisms (PubMed:11285233, PubMed:11294841, PubMed:1542794, PubMed:19386761, PubMed:19915009, PubMed:2261637, PubMed:23294003). Binding of cytokines, such as IL6 or IL11 to the alpha-chains of their specific cell surface receptor triggers homodimerization of IL6ST/gp130 (PubMed:19915009, PubMed:2261637, PubMed:23294003, PubMed:8637716). In contrast, binding of other IL-6 family cytokines can result in the formation of a IL6ST/gp130 heterodimer with another signal-transducing receptor, such as LIFR or OSMR (PubMed:1542794,

PubMed:39532904, PubMed:8999038, PubMed:9030543, PubMed:9188471). Moreover, binding of CNTF or CLCF1 or the heterodimeric complex CRLF1-CLCF1 or MT-RNR2/humanin to the non- signaling receptor CNTFR induces heterodimerization of the IL6ST/gp130 with LIFR or IL27RA/WSX1 (in the case of MT-RNR2/humanin) (PubMed:11285233, PubMed:11294841, PubMed:19386761). Mechanistically, homodimerization or heterodimerization of IL6ST/gp130 activate JAK tyrosine kinases bound to their intracellular domains (PubMed:11294841, PubMed:19915009, PubMed:2261637, PubMed:23294003, PubMed:27384491, PubMed:8272873, PubMed:9030543, PubMed:9188471). These kinases subsequently phosphorylate the homodimer or heterodimer form of IL6ST/gp130 (PubMed:11285233, PubMed:11294841, PubMed:19915009, PubMed:23294003, PubMed:25731159, PubMed:9030543). The tyrosine phosphorylated signaling receptors serve in turn as docking sites for recruitment and activation of signal transducer and activators of transcription (STATs) (PubMed:11285233, PubMed:11294841, PubMed:19386761, PubMed:19915009, PubMed:23294003, PubMed:25731159, PubMed:27384491, PubMed:9030543, PubMed:9188471). The IL6 signaling pathway induces, in parallel, 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). 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).

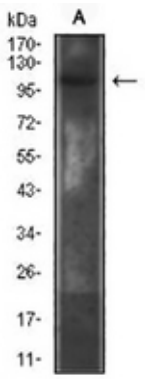
Cellular Location

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

Tissue Location

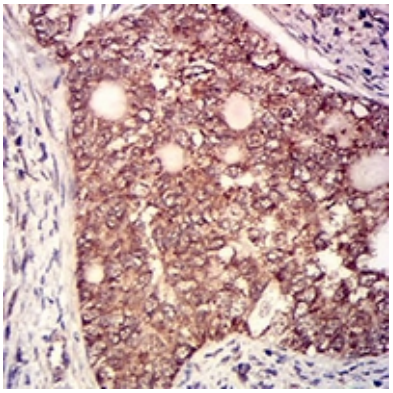
Found in all the tissues and cell lines examined (PubMed:2261637). Expression not restricted to IL6 responsive cells (PubMed:2261637).

Images

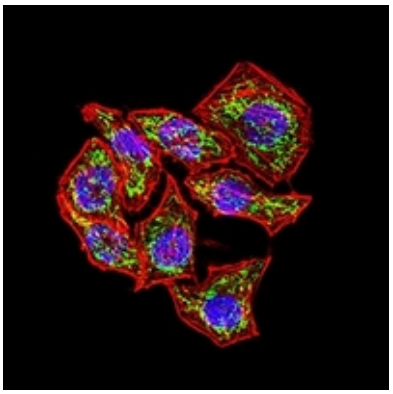


Western blot analysis of CD130 expression in COS7 (A) whole cell lysates. (Predicted band size: 104 kD; Observed band size: 104 kD)

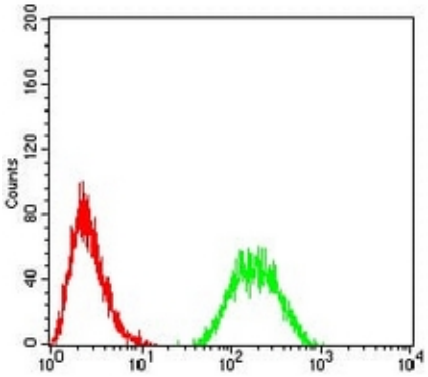
Immunohistochemical analysis of CD130 staining in human cervical cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated



compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of CD130 staining in Hela cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with an AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).



Flow cytometric analysis of HL60 cells using Anti-CD130 Antibody (green) and negative control (red).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.