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CD130 Polyclonal Antibody

Catalog # AP68904

Product Information

Application	WB, IHC-P, IF, ICC, E
Primary Accession	P40189
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	103537

Additional Information

Gene ID	3572
Other Names	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
Dilution	WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/20000. Not yet tested in other applications. IHC-P~~N/A IF~~1:50~200 ICC~~N/A E~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

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

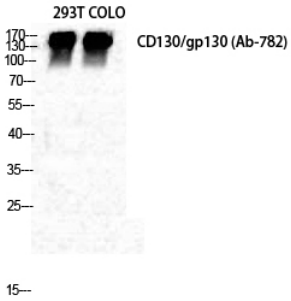
	result in the formation of a IL6ST/gp130 heterodimer with another signal-transducing receptor, such as LIFR or OSMR (PubMed:1542794, PubMed:39532904, PubMed:8999038, PubMed:9030543, PubMed:9188471). Moreover, binding of CNTF or CLCF1 or the heterodimeric complex CRLF1-CLCF1 or MT-RNR2/humanin to the 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).

Background

Signal-transducing molecule. 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 Janus kinases (PubMed:2261637). That causes phosphorylation of IL6ST tyrosine residues which in turn activates STAT3 (PubMed:19915009, PubMed:23294003). Mediates signals which regulate immune response, hematopoiesis, pain control and bone metabolism (By similarity). Has a role in embryonic development (By similarity). Does not bind IL6 (PubMed:2261637). 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).

Images

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



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