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# CD130 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11107b

## Product Information

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| **Application** | WB, IHC-P, E |
| **Primary Accession** | P40189 |
| **Other Accession** | NP_002175.2, NP_786943.1 |
| **Reactivity** | Human |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB17993 |
| **Calculated MW** | 103537 |
| **Antigen Region** | 871-899 |

## Additional Information

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| **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** | This CD130 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 871-899 amino acids from the C-terminal region of human CD130. |
| **Dilution** | WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration. |
| **Format** | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification. |
| **Storage** | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | CD130 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **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:19915009, PubMed:2261637, PubMed:23294003). That causes phosphorylation of IL6ST tyrosine residues which in turn activates STAT3 (PubMed:19915009, PubMed: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).

## Background

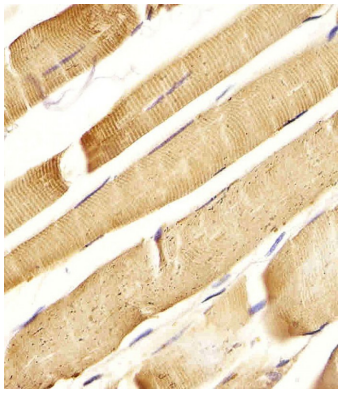
The protein encoded by this gene is a signal transducer shared by many cytokines, including interleukin 6 (IL6), ciliary neurotrophic factor (CNTF), leukemia inhibitory factor (LIF), and oncostatin M (OSM). This protein functions as a part of the cytokine receptor complex. The activation of this protein 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 encoding distinct isoforms have been described. A related pseudogene has been identified on chromosome 17.

## References

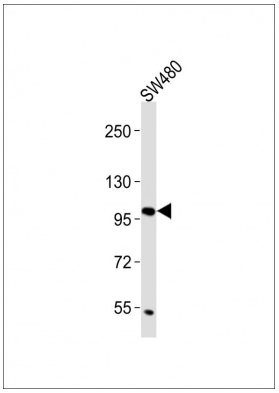
Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Goette, N.P., et al. Exp. Hematol. 38(10):868-876(2010)
Johnatty, S.E., et al. PLoS Genet. 6 (7), E1001016 (2010) :
Olsen, J.V., et al. Cell 127(3):635-648(2006)
Richards, P.J., et al. Arthritis Rheum. 54(5):1662-1672(2006)

## Images

AP11107b staining CD130 in Human skeletal muscle tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent



antibody was used as the secondary antibody.




Anti-CD130 Antibody (C-term)at 1:2000 dilution + SW480 whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 104 kDa Blocking/Dilution buffer: 5% NFDM/TBST.