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Anti-LIF Picoband Antibody

Catalog # ABO11759

Product Information

Application	WB, IHC-P
Primary Accession	P15018
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Leukemia inhibitory factor(LIF) detection. Tested with WB, IHC-P in Human.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	3976
Other Names	Leukemia inhibitory factor, LIF, Differentiation-stimulating factor, D factor, Melanoma-derived LPL inhibitor, MLPLI, Emfilermin, LIF, HILDA
Calculated MW	22008
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, By Heat Western blot, 0.1-0.5 □g/ml, Human
Subcellular Localization	Secreted.
Source	Eukaryota
Protein Name	Leukemia inhibitory factor
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E.coli-derived human LIF recombinant protein (Position: S23-F202). Human LIF shares 78% and 82% amino acid (aa) sequences identity with mouse and rat LIF, respectively.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities	Belongs to the LIF/OSM family.

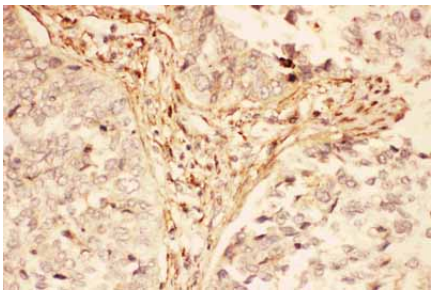
Protein Information

Name	LIF (HGNC:6596)
Synonyms	HILDA
Function	Functions as a cytokine that binds to the LIF receptor complex (PubMed:11294841, PubMed:14527405, PubMed:36930708). The LIF receptor complex indeed consists of two signaling receptor subunits IL6ST/gp130 and LIFR that transduce the signal into the cell (PubMed:14527405, PubMed:36930708). Functionally, regulates cell self- renewal, differentiation and survival of embryonic stem cells (ESCs) and is crucial for embryonic implantation (By similarity). Mechanistically, ligand binding to LIFR, induces heterodimerization with IL6ST/gp130 activating JAK tyrosine kinases (JAK1 or JAK2 and to a lesser extent TYK2) bound to their intracellular domains (PubMed:11294841). These kinases subsequently phosphorylate IL6ST/gp130 and LIFR (PubMed:11294841). The tyrosine phosphorylated signaling receptors serve in turn as docking sites for recruitment and activation of signal transducers and activators of transcription (STAT3 and to lesser extent STAT1) (PubMed:11294841). In parallel to the activation of the STAT3-pathway, the binding of LIF to the LIF receptor complex leads to the activation of the mitogen-activated protein kinase (MAPK) and the phosphatidylinositol 3-kinase (PI(3)K) pathways (PubMed:11294841). Tyrosine phosphorylation of the p85 subunit of PI(3)K by JAK1 leads to activation of the serine/ threonine kinase AKT (protein kinase B) (PubMed:11294841). PI(3)K-dependent signaling is required for efficient self-renewal of murine ES cells, and regulation of ERK activity is functionally important in this response (By similarity). Moreover, induces tyrosine phosphorylation of PTPN11, that associates with IL6ST/gp130-LIFR, which in turn recruits the p85 regulatory subunit of PI(3)K protein kinase, promoting PI3K-AKT activation, and GRB2-RAS-MAPK signaling (PubMed:11294841).
Cellular Location	Secreted.

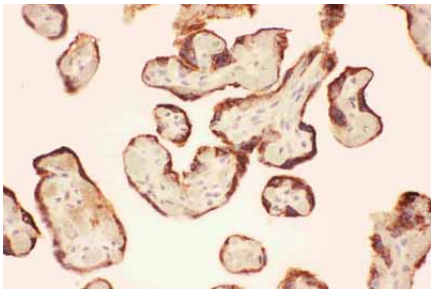
Background

LIF is a pleiotropic cytokine produced at the maternal-fetal interface which has been shown to play an essential role in implantation in mice. This gene is mapped to 22q11-q12.2, between the Philadelphia translocation BCR gene and the breakpoint of the translocation in cell line GM2324 at 22q12.2. LIF is produced in high amounts by the human endometrium and the trophoblast itself, and LIF receptors are present on cytotrophoblast cells. LIF could, thus, play a role in modulating HLA-G production and immune tolerance at the maternal-fetal interface.

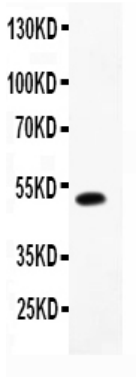
Images



Anti-LIF Picoband antibody, ABO11759-1.JPGIHC(P): Human Lung Cancer Tissue



Anti-LIF Picoband antibody, ABO11759-2.JPGIHC(P): Human Placenta Tissue



Anti-LIF Picoband antibody, ABO11759-3.jpgAll lanes: Anti-LIF(ABO11759) at 0.5ug/mlWB: Recombinant Human LIF Protein 0.5ngPredicted bind size: 50KDObserved bind size: 50KD

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