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LIF Rabbit pAb

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Catalog # AP52130

Product Information

Application	WB
Primary Accession	P15018
Reactivity	Human, Mouse
Predicted	Rat, Pig, Dog, Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	22008
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human LIF
Epitope Specificity	101-202/202
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Secreted.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The leukemia inhibitory factor- LIF is a kind of cell factor that has various living creature functions.It has the leukemia cell of inducement to divide, regulating the growth metabolism of the bone organization, maintaining the basic characteristic of the Embryonicstem celles and promoting the mankind build the blood stem cell to divide to propagate, promote the cholinergic neuron to divide, obstruct the fat cell to synthesize, stimulate the muscle cell growth, regulate the liver cell to expect to respond the egg white to synthesize etc. in the acute the biology activity etc. function.

Additional Information

Gene ID	3976
Other Names	Leukemia inhibitory factor, LIF, Differentiation-stimulating factor, D factor, Melanoma-derived LPL inhibitor, MLPLI, Emfilermin, LIF, HILDA
Dilution	WB=1:500-2000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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

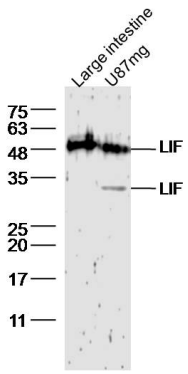
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References

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Lowe D.G.,et al.DNA 8:351-359(1989).
Brandenberger R.,et al.Nat. Biotechnol. 22:707-716(2004).
Stahl J.,et al.J. Biol. Chem. 265:8833-8841(1990).
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Images

Sample:
Large intestine(mouse) Lysate at 40 ug
U87mg cell(human) Lysate at 30 ug
Primary: Anti- LIF (AP52130) at 1/300 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 20kD
Observed band size: 30/50 kD



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