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Anti-LIF Antibody (clone ABM2C57)

Rat Anti Mouse Monoclonal Antibody
Catalog # ALS17350

Product Information

Application	WB, IHC, IHC-P
Primary Accession	P15018
Predicted	Mouse
Host	Rat
Clonality	Monoclonal
Isotype	IgG2b,k
Clone Names	ABM2C57
Calculated MW	22008
Concentration (mg/ml)	0.5 mg/ml

Additional Information

Gene ID	3976
Alias Symbol	LIF
Other Names	LIF, DIA, Emfilermin, HILDA, Melanoma-derived LPL inhibitor, MLPLI, Leukemia inhibitory factor, CDF, D factor, Human interleukin in DA cells
Reconstitution & Storage	PBS, 0.05% sodium azide. Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze-thaw cycles.
Precautions	Anti-LIF Antibody (clone ABM2C57) is for research use only and not for use in diagnostic or therapeutic procedures.

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.

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