

Product datasheet for **TA337172**

LIF Rat Monoclonal Antibody [Clone ID: 39N7D10]

Product data:

Product Type:	Primary Antibodies
Clone Name:	39N7D10
Applications:	ICC/IF, IHC, WB
Recommended Dilution:	Immunohistochemistry, Immunohistochemistry-Paraffin: 5 ug/mL, Western Blot: 3-5ug/ml~, Immunocytochemistry/ Immunofluorescence
Reactivity:	Human, Mouse
Host:	Rat
Isotype:	IgG2b, kappa
Clonality:	Monoclonal
Immunogen:	A recombinant murine Lif protein containing amino acids 24-203 was used as the immunogen for this antibody.
Formulation:	PBS containing 0.05% BSA, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Protein G purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	leukemia inhibitory factor
Database Link:	NP_002300 Entrez Gene 16878 Mouse Entrez Gene 3976 Human P15018



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Background:

Lif has long been recognized as a cytokine which promotes murine germ cell growth in the absence of feeder cell layers in mouse cells (1-3) Characterized initially as an inhibitor of differentiation in M1 murine monocytic leukemia lines (hence the name Leukemia Inhibitory Factor), Lif is now recognized as a key factor for maintaining stem cells in the undifferentiated state- at least in mouse embryonic stem cells (4) Acting through the Lif receptor and the induced activation of STAT3, murine ESCs can be maintained in vitro in undifferentiated state However, human ESCs, although functionally stimulated with Lif, are not similarly maintained as undifferentiated This illustrates a different functional program for Lif in mice and humans in maintenance of stem cells An IL-6 family member, Lif is an important pleiotropic cytokine with activity on cells of hematopoietic and non-hematopoietic origin.

Synonyms:

CDF; DIA; HILDA; MLPLI

Note:

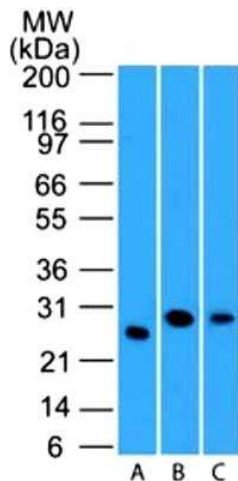
The Lif protein can be highly glycosylated and has been observed between 22 kD and 34 kD in western blotting. In IHC-P application, 1M EDTA buffer pH 9.0 was used for antigen retrieval (citrate buffer pH 6.0 did not work for this target).

Protein Families:

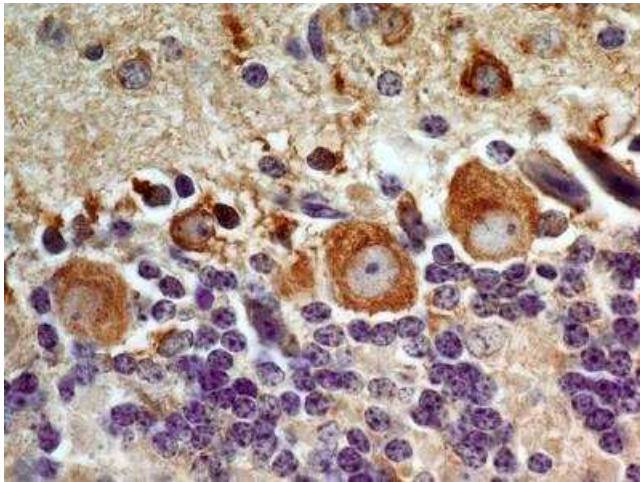
Adult stem cells, Druggable Genome, ES Cell Differentiation/IPS, Secreted Protein

Protein Pathways:

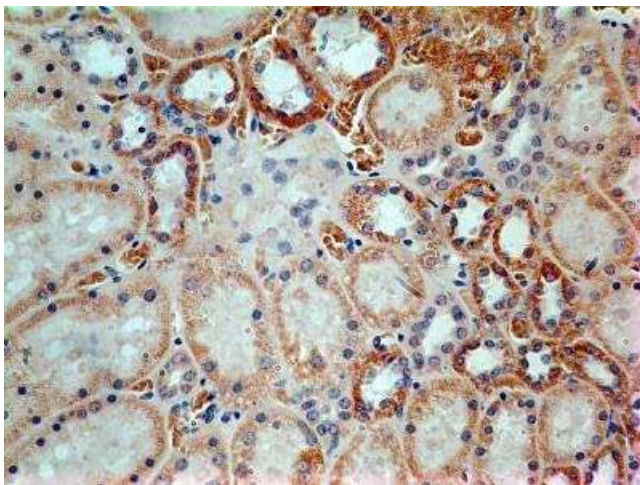
Cytokine-cytokine receptor interaction, Jak-STAT signaling pathway

Product images:

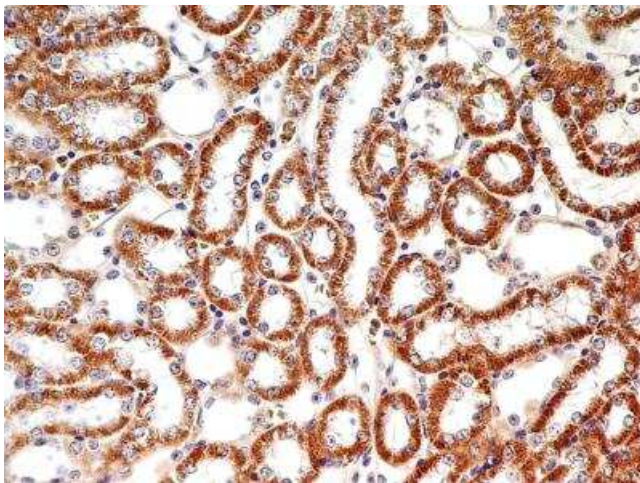
Western Blot: LIF Antibody (39N7D10) TA337172 - WB validation of LIF antibody (clone 39N7D10) on (A) full-length recombinant Lif protein, (B) mouse spleen lysate and (C) human spleen lysate. 3 ug/mL concentration of primary antibody, Goat anti-rat IgG HRP secondary antibody and PicoTect ECL substrate solution were used for this assay.



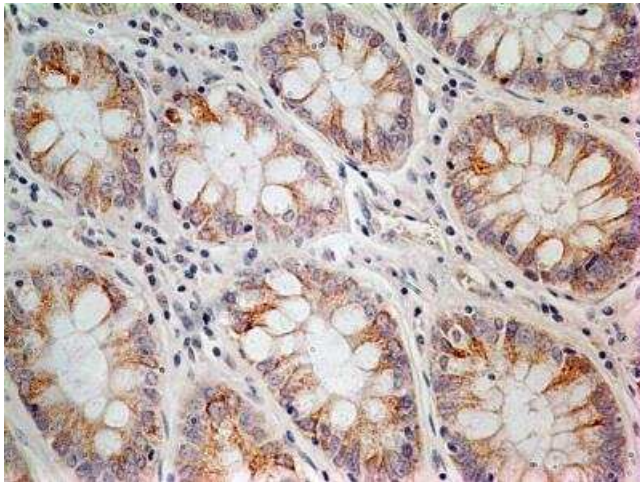
Immunohistochemistry-Paraffin: LIF Antibody (39N7D10) TA337172 - Tissue section of mouse brain using 5 ug/ml concentration of LIF antibody (clone 39N7D10).



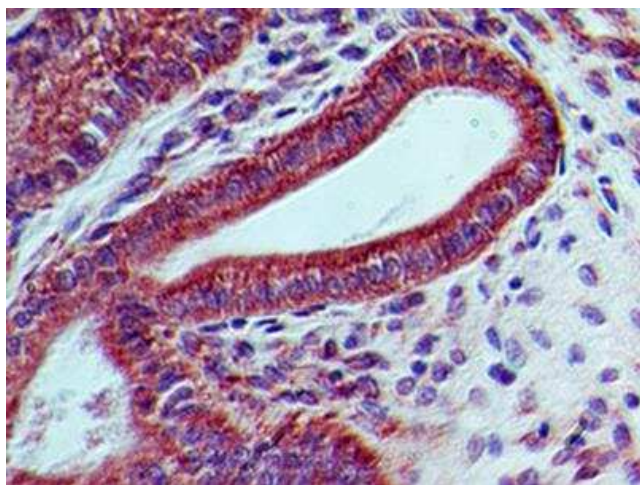
Immunohistochemistry-Paraffin: LIF Antibody (39N7D10) TA337172 - Tissue section of normal human kidney using 5 ug/ml concentration of LIF antibody (clone 39N7D10). Expected membrane-cytoplasmic immunopositivity of LIF was observed in the cuboidal epithelial cells of renal tubules.



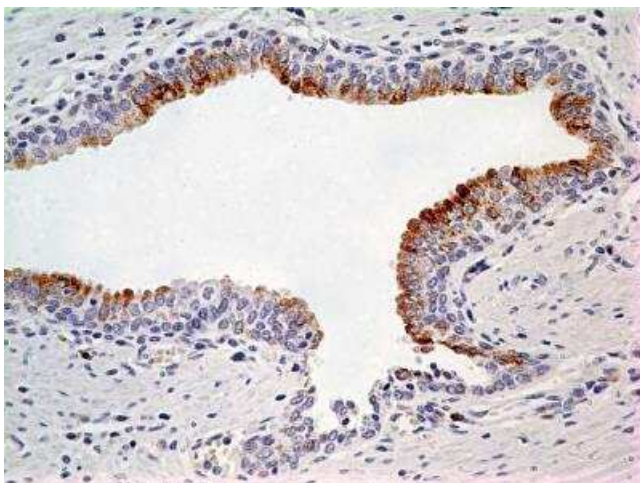
Immunohistochemistry-Paraffin: LIF Antibody (39N7D10) TA337172 - Tissue section of mouse kidney using 5 ug/ml concentration of LIF antibody (clone 39N7D10). Very intense immune positivity of LIF was observed in membranes as well as the cytoplasm of cuboidal epithelial cells of renal tubules.



Immunohistochemistry-Paraffin: LIF Antibody (39N7D10) TA337172 - Tissue section of adenocarcinoma of human rectum using 5 ug/ml concentration of LIF antibody (clone 39N7D10). The cancer cells as well as the goblet cells in the rectal glands depicted membrane-cytoplasmic immunostaining of LIF protein.



Immunohistochemistry-Paraffin: LIF Antibody (39N7D10) TA337172 - Tissue section of mouse colon using 5 ug/ml concentration of LIF antibody (clone 39N7D10). The columnar epithelial cells of the crypts developed intense membrane-cytoplasmic LIF immunostaining. Additionally, some cells in the lamina propria and the sub-mucosal layer also depicted weak positivity for LIF staining.



Immunohistochemistry-Paraffin: LIF Antibody (39N7D10) TA337172 - Tissue section of normal human prostate using 5 ug/ml concentration of LIF antibody (clone 39N7D10). Cell surface/membrane- cytoplasmic immunopositivity of LIF was observed specifically in the epithelial cells of prostate alveolar glands, whereas the surrounding fibromuscular stroma cells did not develop any staining.