Human LIF Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF-250-NA

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human LIF in direct ELISAs.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human LIF Ser23-Phe202 Accession # P15018
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

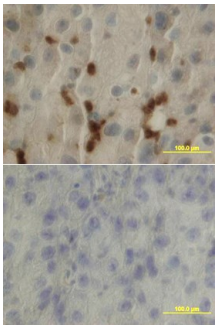
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Immunohistochemistry	5-15 µg/mL	See Below
Neutralization	Measured by its ability to neutralize LIF-induced proliferation in the TF-1 human erythroleukemic cell line. Kitamura, T. *et al.* (1989) J. Cell Physiol. **140**:323. The Neutralization Dose (ND_{50}) is typically 0.04-0.08 µg/mL in the presence of 3 ng/mL Recombinant Human LIF.	

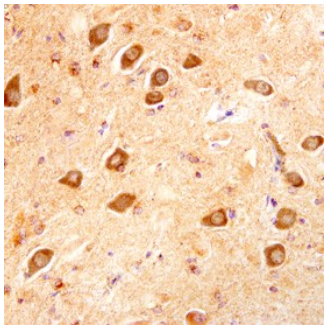
DATA

Immunohistochemistry



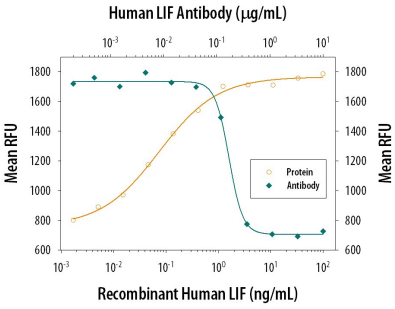
LIF in Human Lung. LIF was detected in immersion fixed paraffin-embedded sections of human lung array using Goat Anti-Human LIF Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-250-NA) at 25 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Lower panel shows a lack of labeling if primary antibodies are omitted and tissue is stained only with secondary antibody followed by incubation with detection reagents. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

Immunohistochemistry



LIF in Human Alzheimer's Brain. LIF was detected in immersion fixed paraffin-embedded sections of human Alzheimer's brain using Goat Anti-Human LIF Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-250-NA) at 10 µg/mL overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic Catalog # CTS013). Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown Catalog # CTS008) and counterstained with hematoxylin (blue). Specific staining was localized to neuronal cytoplasm. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

Neutralization



Cell Proliferation Induced by LIF and Neutralization by Human LIF Antibody. Recombinant Human LIF (Catalog # 7734-LF) stimulates proliferation in the TF-1 human erythroleukemic cell line in a dose-depend-ent manner (orange line), as measured by Resazurin (Catalog # AR002). Proliferation elicited by 3 ng/mL Recombinant Human LIF is neutralized (green line) by increasing concentrations of Goat Anti-Human LIF Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-250-NA). The ND_{50} is typically 0.04-0.08 µg/mL.

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PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

LIF (Leukemia inhibitory factor; also Differentiation-stimulating factor) is a 22 kDa (predicted) glycoprotein, member of the leukemia inhibitory factor/interleukin-6 (LIF/IL-6) family of cytokines. Natural LIF is heavily glycosylated, showing an apparent molecular weight of 32 kDa to 62 kDa, it is produced by a variety of cells including T cells, monocytes, fibroblasts, osteoblasts and mast cells. LIF induces hematopoietic differentiation in normal and myeloid leukemia cells, neuronal cell differentiation and stimulation of acute-phase protein synthesis in hepatocytes. Human LIF acts through a receptor comprising a 190 kDa LIF-binding α-chain and a 130 kDa signal-transducing β-chain (gp130), which is shared with the other members of the IL-6 family. Human and mouse LIF exhibit 78% aa sequence identity.

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