Human LIF Antibody

Monoclonal Mouse IgG_{2B} Clone # 945842

Catalog Number: MAB2502

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human LIF in direct ELISA
Source	Monoclonal Mouse IgG_{2B} Clone # 945842
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Human embryonic kidney cell, HEK293-derived human LIF Met1-Phe202 Accession # P15018
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose.

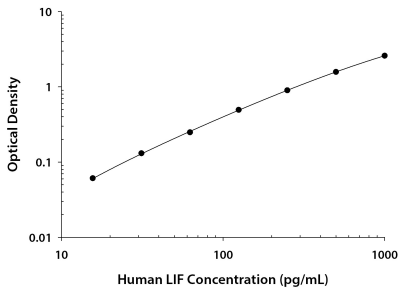
APPLICATIONS

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.*

Human LIF Sandwich Immunoassay		**Reagent**
ELISA Detection	0.1-0.4 µg/mL	Human LIF Biotinylated Antibody (Catalog # BAF250)
ELISA	This antibody functions as an ELISA capture antibody when paired with Goat Anti-Human LIF Biotinylated Antigen Affinity-purified Polyclonal Antibody (Catalog # BAF250). *This product is intended for assay development on various assay platforms requiring antibody pairs. We recommend the Human LIF DuoSet ELISA Kit (Catalog # DY7734-05) for convenient development of a sandwich ELISA.*	

DATA

ELISA



Human LIF ELISA Standard Curve. Recombinant Human LIF protein was serially diluted 2-fold and captured by Mouse Anti-Human LIF Monoclonal Antibody (Catalog # MAB2502) coated on a Clear Polystyrene Microplate (Catalog # DY990). Goat Anti-Human LIF Biotinylated Antigen Affinity-purified Polyclonal Antibody (Catalog # BAF250) was biotinylated and incubated with the protein captured on the plate. Detection of the standard curve was achieved by incubating Streptavidin-HRP (Catalog # DY998) followed by Substrate Solution (Catalog # DY999) and stopping the enzymatic reaction with Stop Solution (Catalog # DY994).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 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.

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BACKGROUND

LIF is a 36-67 kDa highly glycosylated polypeptide (1, 2) produced by a variety of cells including T cells (3), monocytes (4), fibroblasts (5), osteoblasts (6) and mast cells (7). Consistent with its many synonyms, LIF exhibits a broad spectrum of effects on both hematopoietic and nonhematopoietic cells. For example, LIF inhibits the differentiation of embryonic stem cells (8), up regulates the synthesis of acute phase proteins in hepatocytes (9), down regulates lipoprotein lipase activity in adipocytes (10), and preferentially induces a cholinergic phenotype in sympathetic neurons (11). The receptor for LIF (LIF R) has been isolated and found to be a 190 kDa type I transmembrane glycoprotein (12). Although this molecule binds LIF, the resultant LIF-LIF R complex is not sufficient to transduce an intracellular signal. This capability is provided by a 130 kDa signal transducing subunit (gp130) that is common to the functional receptors for IL-6, IL-11, CNTF, and Oncostatin M (13, 14). Since gp130 is a ubiquitously expressed membrane protein, the presence of LIF R (membrane-bound or soluble form) ultimately determines the cell's responsiveness to LIF. Cells known to express LIF R include osteoblasts (6), hepatocytes (15), macrophages (15), neurons (5), and megakaryocytes (16). Human and mouse LIF exhibit 78% sequence homology, and human LIF is biologically active on mouse cells.

References:

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