Datasheet for ABIN1889369

LIFR ELISA Kit

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Overview

Quantity:	96 tests
Target:	LIFR
Binding Specificity:	AA 45-833
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	156-10.000 pg/mL
Minimum Detection Limit:	156 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human LIFR
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: Q45-S833
Specificity:	Expression system for standard: NSO Immunogen sequence: Q45-S833
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<10pg/mL
Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g Nacl

Target Details

Target:	LIFR
Alternative Name:	LIFR (LIFR Products)
Background:	Protein Function: Signal-transducing molecule. May have a common pathway with IL6ST. The soluble form inhibits the biological activity of LIF by blocking its binding to receptors on target cells. Background: LIFR, also known as CD118(Cluster of Differentiation 118), is a subunit of a receptor for leukemia inhibitory factor. This gene encodes a protein that belongs to the type I cytokine receptor family. It is mapped to 5p31.1. The LIF receptor(LIFR) is the low-affinity binding chain that, together with the high-affinity converter subunit gp130, forms a high-affinity receptor complex that mediates the action of the leukemia-inhibitory factor. LIF is a polyfunctional cytokine that affects the differentiation, survival, and proliferation of a wide variety of cells in the adult and the embryo. Mutations in this gene cause Schwartz-Jampel syndrome type 2, a disease belonging to the group of the bent-bone dysplasias. A translocation that involves the promoter of this gene, togerther with the pleiomorphic adenoma gene 1, is associated with salivary gland pleiomorphic adenoma, a common type of benign epithelial tumor of the salivary gland. Synonyms: Leukemia inhibitory factor receptor,LIF receptor,LIF-R,CD118,LIFR, Full Gene Name: Leukemia inhibitory factor receptor Cellular Localisation: Isoform 1: Cell membrane, Single-pass type I membrane protein.
Gene ID:	3977
UniProt:	P42702
Pathways:	JAK-STAT Signaling, Growth Factor Binding

Application Details

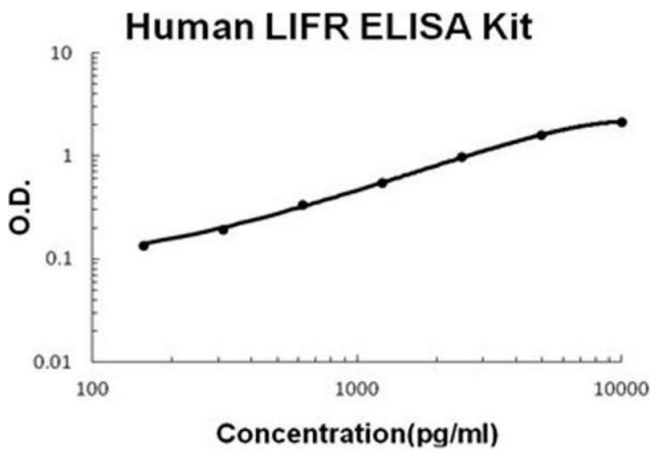
Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.

Application Details

Comment:	Sequence similarities: Belongs to the type I cytokine receptor family. Type 2 subfamily.
Plate:	Pre-coated
Protocol:	human LIFR ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for LIFR has been precoated onto 96-well plates. Standards(NSO, Q45-S833) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for LIFR is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the human LIFR amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 10,000pg/mL, 5000pg/mL, 2500pg/mL, 1250pg/mL, 625pg/mL, 312pg/mL, 156pg/mL human LIFR standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of human cell culture supernates, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human LIFR standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 1147, Standard deviation: 65.4, CV(%): 5.7 • Sample 2: n=16, Mean(pg/ml): 3628, Standard deviation: 152.4, CV(%): 4.2 • Sample 3: n=16, Mean(pg/ml): 6357, Standard deviation: 419.6, CV(%): 6.6, • Sample 1: n=24, Mean(pg/ml): 1458, Standard deviation: 97.7, CV(%): 6.7 • Sample 2: n=24, Mean(pg/ml): 3817, Standard deviation: 221.4, CV(%): 5.8 • Sample 3: n=24, Mean(pg/ml): 6682, Standard deviation: 487.8, CV(%): 7.3
Restrictions:	For Research Use only

Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months



ELISA

Image 1. Human LIFR PicoKine ELISA Kit standard curve

