abcam

ab89792

Anti-LIFR antibody [MM0455-9B23]

Key facts

Isotype	IgG
Host species	Mouse
Storage buffer	Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Full Length Protein corresponding to Human LIFR. Database link P42702
Clone number	MM0455-9B23
Purification technique	Affinity purification Protein G
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	IgG fraction of cell culture supernatant purified by Protein G affinity chromatography and 0.2 µm filtered.

Reactivity data

Flow Cyt

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information LIFR

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.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	The leukemia inhibitory factor receptor also known as LIFR is a protein that plays an important role in cellular signaling. It has a mass of approximately 190-210 kDa and it is widely expressed in various tissues such as the liver muscle and bone. LIFR is a member of the interleukin 6 (IL-6) receptor family. The 'LIFR selector' refers to its ability to bind and select its specific ligand leukemia inhibitory factor (LIF) which initiates signal transduction processes. LIFR expression tends to be higher in developing tissues indicating its involvement during embryogenesis.
Biological function summary	The leukemia inhibitory factor receptor is involved in various cellular processes including differentiation proliferation and survival. When LIF binds to LIFR it forms a complex with gp130 another receptor protein which then activates downstream

	signaling pathways that regulate these cellular processes. This complex formation is an important component in the maintenance of stem cell pluripotency which is important in early development. The LIFR meaning in this context is essential for translating extracellular signals into cellular responses.
Pathways	The leukemia inhibitory factor receptor plays a critical role in the JAK/STAT signaling pathway. This pathway is significant for transmitting information received from extracellular chemical signals to the cell nucleus resulting in DNA transcription. LIFR closely interacts with other proteins like STAT3 and JAK1 which further propagate the signaling cascade initiated by LIF binding. Another pathway involving LIFR is the MAPK/ERK pathway a major pathway that influences cell growth and differentiation. These pathways highlight the interconnectivity of LIFR in regulating key cellular functions.
Associated diseases and disorders	LIFR has been linked to cancer progression and osteoporosis. Abnormal LIFR signaling can lead to unchecked cellular proliferation contributing to tumorigenesis in various cancers such as liver and breast cancer. LIFR also interacts with proteins like gp130 and the aforementioned STAT3 in the cancerous context. In osteoporosis altered LIFR expression affects bone metabolism potentially leading to increased bone resorption and weakening. The role of LIFR in these diseases demonstrates its potential as a therapeutic target and its importance in maintaining normal tissue homeostasis.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

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