IGF1R Cell Lysate – Tissue Lysate

PRODUCT OVERVIEW

Product Name	IGF1R, Cell Lysate
Full Product Name	Mouse IGF1R HEK293 Overexpression Lysate
Product Gene Name	IGF1R cell lysate
Product Synonym Names	Mouse IGF1R HEK293 Cell Lysate (WB positive control); Mouse A330103N21Rik Overexpression Lysate; Mouse CD221 Overexpression Lysate; Mouse D930020L01 Overexpression Lysate; Mouse hyft Overexpression Lysate; Mouse IGF-1R Overexpression Lysate; insulin-like growth factor 1 receptor
Host	HEK293 Cells
Form/Format	Modified RIPA Lysis Buffer: 50 mM Tris-HCl pH7.4, 150 mM NaCl, 1mM EDTA, 1% Triton X-100, 0.1% SDS, 1% Sodium deoxycholate, 1mM PMSF. 1 X Sample Buffer (1 X modified RIPA buffer+1 X SDS loading buffer).
Preparation and Storage	Store at 4 degree C for up to twelve months from date of receipt. After re-dissolution, aliquot and store at -80 degree C for up to twelve months. Avoid repeated freeze-thaw cycles.
Molecular Weight	The recombinant mouse IGF1R consists of 917 amino acids and predicts a molecular mass of 105.2kDa. As a result of glycosylation, it migrates as an approximately 172.5kDa, 117.1kDa and 49.8kDa, corresponding to the single chain, alpha subunit and beta subu
Species	Mouse
Sequence Information	A DNA sequence encoding the mouse IGF1R (NP_034643.2)(Met1-His936) was expressed with a polyhistidine tag at the C-terminus.
Preparation Method	Cell lysate was prepared by homogenization in ice-cold modified RIPA Lysis Buffer with cocktail of protease inhibitors (Sigma). Cell debris was removed by centrifugation. Protein concentration was determined by Bradford assay (protein assay, Microplate Standard assay). The cell lysate was boiled for 5 min in 1 x SDS loading buffer (50mM Tris-HCl pH6.8, 12.5% glycerol, 1% sodium dodecylsulfate, 0.01% bromophenol blue) containing 5% b-mercaptoethanol, and lyophilized.
Recommend Usage	1. Centrifuge the tube for a few seconds and ensure the pellet at the bottom of the tube. 2. Re-dissolve the pellet using 200uL pure water and boil for 2-5 min. 3. Store the lyophilized cell lysate at 4 degree C. After re-dissolution, recommend to aliquot it into smaller quantities and store at -80 degree C.
Product Categories/Family for IGF1R cell lysate	Receptor Tyrosine Kinases (RTKs) Cancer Drug Targets; AKT Signaling Pathway
Applications Tested/Suitable for IGF1R cell lysate	Western Blot (WB)

Related Product Information for IGF1R cell lysate	Description: This Mouse IGF1R overexpression lysate was created in HEK293 Cells and intented for use as a Western blot (WB) positive control. Purification of IGF1R protein from the overexpression lysate was verified. Background: The insulin-like growth factor-1 receptor (IGF1R) is a transmembrane tyrosine kinase involved in several biological processes including cell proliferation, differentiation, DNA repair, and cell survival. This a disulfide-linked heterotetrameric transmembrane protein consisting of two alpha and two beta subunits, and among which, the alpha subunit is extracellular while the beta subunit has an extracellular domain, a transmembrane domain, and a cytoplasmic tyrosine kinase domain. The IGF1R signaling pathway is activated in the mammalian nervous system from the early developmental stages. Its major effect on developing neural cells is to promote their growth and survival. This pathway can integrate its action with signaling pathways of growth and morphogenetic factors that induce cell fate specification and selective expansion of specified neural cell subsets. Modulation of cell migration is another possible role that IGF1R activation may play in neurogenesis. In the mature brain, IGF-I binding sites have been found in different regions of the brain, and multiple reports confirmed a strong neuroprotective action of the IGF-IR against different pro-apoptotic insults. IGF1R is an important signaling molecule in cancer cells and plays an essential role in the establishment and maintenance of the transformed phenotype. Inhibition of IGF1R signaling thus appears to be a promising strategy to interfere with the growth and survival of cancer cells. IGF1R is frequently overexpressed by tumors and mediates proliferation and apoptosis protection. IGF signaling also influences hypoxia signaling, protease secretion, tumor cell motility, and adhesion, and thus can affect the propensity for invasion and metastasis. Therefore, IGF1R is now an attractive anti-cancer treatment target.
Product References and Citations for IGF1R cell lysate	Bhr C, et al. (2004) The insulin like growth factor-1 receptor (IGF-1R) as a drug target: novel approaches to cancer therapy. Growth Horm IGF Res. 14 (4): 287-95. Riedemann J, et al. (2006) IGF1R signalling and its inhibition. Endocr Relat Cancer. 13 Suppl 1: 33-43. Gualco E, et al. (2009) IGF-IR in neuroprotection and brain tumors. Front Biosci. 14: 352-75. Annenkov A. (2009) The insulin-like growth factor (IGF) receptor type 1 (IGF1R) as an essential component of the signalling network regulating neurogenesis. Mol Neurobiol. 40 (3): 195-215.
Other Notes	Small volumes of IGF1R cell lysate vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for IGF1R purchase	MBS8119909 is a cell lysate targeting IGF1R. Also known as Mouse IGF1R HEK293 Overexpression Lysate. Host: HEK293 Cells.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for IGF1R. It may not necessarily be applicable to this product.

Protein Family	Insulin-like growth factor 1 receptor
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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