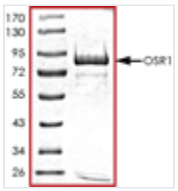
OSR1 Recombinant Protein

PRODUCT OVERVIEW

Product Name	OSR1, Recombinant Protein
Full Product Name	OSR1 recombinant protein
Product Gene Name	OSR1 recombinant protein
Product Synonym Gene Name	OXSR1; KIAA1101
Product Synonym Names	OXSR1; KIAA1101
Host	Sf9 insect cells
Form/Format	50mM Tris-HCl, pH 7.5, 50mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.
Preparation and Storage	Store product at -70 degree C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.
Molecular Weight	~86 kDa
Chromosome Location	Chromosome: 3; NC_000003.11 (38207022..38296979). Location: 3p22.2
OMIM	604046
3D Structure	ModBase 3D Structure for O95747
Type	Recombinant Fusion Protein
Species	Human
Tag Information	GST tag
Expression System	Sf9 insect cells using baculovirus
Source Note	Recombinant full-length human OSR1 was expressed by baculovirus in Sf9 insect cells
Dry Ice Shipment	Extra charge fee may add to your shipping cost as dry ice is required to ship this product.
Product Categories/Family for OSR1 recombinant protein	Cellular Proteins; Signaling Proteins - Cellular Proteins
Applications Tested/Suitable for OSR1 recombinant protein	Western Blot (WB)
Related Product Information for OSR1 recombinant protein	Recombinant full-length human OSR1 was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag. **Scientific Background:** OSR1 is a member of the Ser/Thr family of protein kinases. OSR1 is activated by osmotic stresses and regulates the downstream protein kinase such as PAK1 in order to establish the sensor/signaling modules that initiate the cellular response to environmental stress (1). OSR1 can be phosphorylated by ATM or ATR during DNA damage process (2).
Product References and Citations for OSR1 recombinant protein	1. Chen W. et al: Characterization of OSR1, a member of the mammalian Ste20p/germinal center kinase subfamily. J. Biol. Chem. 279:11129-11136(2004). 2. Matsuoka S. et al: ATM and ATR substrate analysis reveals extensive protein networks responsive to DNA damage. Science 316:1160-1166 (2007).
Other Notes	Small volumes of OSR1 recombinant protein 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 OSR1 purchase	MBS515319 is a recombinant protein targeting OSR1. Host: Sf9 insect cells.



SDS-PAGE of OSR1 recombinant protein

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for OSR1. It may not necessarily be applicable to this product.

NCBI GI #	75709206
NCBI GeneID	9943
NCBI Accession #	NP_005100.1
UniProt Primary Accession #	O95747
UniProt Secondary Accession #	Q3LR53; Q7Z501; Q9UPQ1
UniProt Related Accession #	O95747
GenBank Nucleotide #	NM_005109
NCBI Official Full Name	Homo sapiens oxidative stress responsive 1 (OXSR1), mRNA
NCBI Official Synonym Full Names	oxidative stress responsive 1
NCBI Official Symbol	OXSR1
NCBI Official Synonym Symbols	OSR1
UniProt Protein Name	Serine/threonine-protein kinase OSR1
UniProt Synonym Protein Names	Oxidative stress-responsive 1 protein
Protein Family	Protein odd-skipped
UniProt Gene Name	OXSR1
UniProt Synonym Gene Names	KIAA1101; OSR1
UniProt Entry Name	OXSR1_HUMAN
NCBI Protein Information	serine/threonine-protein kinase OSR1; oxidative-stress responsive 1; oxidative stress-responsive 1 protein
NCBI Summary for OSR1	The product of this gene belongs to the Ser/Thr protein kinase family of proteins. It regulates downstream kinases in response to environmental stress, and may play a role in regulating the actin cytoskeleton. [provided by RefSeq, Jul 2008]

UniProt Comments for OSR1	Function: Regulates downstream kinases in response to environmental stress. May also have a function in regulating the actin cytoskeleton. Ref.6 Catalytic activity: ATP + a protein = ADP + a phosphoprotein. Cofactor: Magnesium. Enzyme regulation: By autophosphorylation on threonine. Ref.6 Subunit structure: Binds to and phosphorylates PAK1. Interacts with chloride channel proteins SLC12A6 isoform 2, SLC12A1 and SLC12A2 but not with SLC12A4 and SLC12A7, possibly establishing sensor/signaling modules that initiate the cellular response to environmental stress. Binds to and phosphorylates RELL1, RELL2 AND RELT. Ref.6 Ref.7 Subcellular location: Cytoplasm Ref.17. Tissue specificity: Ubiquitously expressed in all tissue examined. Ref.1 Sequence similarities: Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. STE20 subfamily.Contains 1 protein kinase domain. Sequence caution: The sequence AAP97192.1 differs from that shown. Reason: Erroneous initiation. The sequence BAA83053.2 differs from that shown. Reason: Frameshift at position 63.
Research Articles on OSR1	**1.** SPAK and OSR1, which are often coexpressed in cells, can form functional heterodimers.
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