

Active Recombinant Human NUA2, His-tagged(Mutant K85R)

Cat. No. NUA2-91H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	The recombinant Human NUA2, His-tagged(Mutant K85R) protein was expressed in E. coli and purified by affinity chromatography in combination with FPLC columns.
Species	Human
Source	E.coli
Description	Highest expression of SNARK is found in kidney, followed in order by brain, ovary, heart, lung, skeletal muscle, pancreas, testis, and spleen. In insulin-stimulated adipocytes, SIK2 phosphorylates IRS1 at ser794 and may modulate the efficiency of insulin signal transduction, eventually causing the insulin resistance associated with diabetes. Cells with reduced expression of SNARK also showed reduced motility and invasiveness in response to CD95 engagement. SNARK therefore represents an NF-kappaB-regulated anti-apoptotic gene that contributes to the tumor-promoting activity of CD95 in apoptosis-resistant tumor cells. Glucose deprivation increased SNARK activity 3-fold in BHK fibroblasts. These findings identify SNARK as a glucose- and AICariboside-regulated member of the AMPK-related gene family that represents a new candidate mediator of the cellular response to metabolic stress.
Form	The protein is in 20mM Tris-HCl pH7.9,100mM NaCl, 0.2mM EDTA, 1mM DTT and 20% glycerol.
Bio-activity	1 unit equals 1 nanogram of purified protein.
Molecular Mass	71.8 kDa.

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AA Sequence

MESLVFARRS GPTPSAAELA RPLAEGLIKS PKPLMKKQAV KRHHHKHNLR
 HRYEFLETG KGTYGKVKKA RESSGRLVAI KSIRRDKI KD EQDLMHIRRE
 IEIMSSLNHP HIIAIEVFE NSSKIVIVME YASRGDLYDY ISERQQLSER
 EARHFFRQIV SAVHYCHQNR VVHRDLKLEN ILLDANGNIK IADFGLSNLY
 HQGKFLQTFC GSPLYASPEI VNGKPYTGPE VDSWSLGVLL YILVHGTMPF
 DGHDHKILVK QISNGAYREP PKPSDACGLI RWLLMVNPTR RATLEDVASH
 WWWNWGYATR VGEQEAPHEG GHPGSDSARA SMADWLRRSS RPLENGAKV
 CSFFKQHAPG GGSTTPGLER QHSLKKS RKE NDMAQSLHSD TADDTAHRPG
 KSNLKLPGKI LKKKVSASAE GVQEDPPELS PIPASPGQAA PLLPKKGILK
 KPRQRESGYY SSPEPSESGE LLDAGDV FVS GDPKEQKPPQ ASGLLLHRKG
 ILKLNKFSQ TALELAAPTT FGSLDELAPP RPLARASRPS GAVSEDSILS
 SESFDQLDLP ERLPEPPLRG CVSDNLTGL EEPPESEPGS CLRRWRQDPL
 GDSCFSLTDC QEVTATYRQA LRVCSKLT

Purity

Greater than 90% as determined by SDS-PAGE.

Applications

It is capable of autophosphorylation in vitro; immunoprecipitated SNARK has been known to show phosphotransferase activity with a synthetic peptide substrate.

Storage

Stored at -70°C before use. Avoid repeated freeze thaw cycles.

GENE INFORMATION
Gene Name

NUAK2 NUAK family, SNF1-like kinase, 2 [Homo sapiens]

Official Symbol

NUAK2

Synonyms

NUAK2; NUAK family, SNF1-like kinase, 2; NUAK family SNF1-like kinase 2;
 FLJ90349; SNARK; SNF1/AMP activated protein kinase; omphalocele kinase 2;
 SNF1/AMP kinase-related kinase; DKFZp434J037; DKFZp686F01113;

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Gene ID	81788
mRNA Refseq	NM_030952
Protein Refseq	NP_000153
MIM	138079
UniProt ID	P35557
Chromosome Location	7p15.3-p15.1
Pathway	Amino sugar and nucleotide sugar metabolism, organism-specific biosystem; Amino sugar and nucleotide sugar metabolism, conserved biosystem; Butirosin and neomycin biosynthesis, organism-specific biosystem; Butirosin and neomycin biosynthesis, conserved biosystem; Developmental Biology, organism-specific biosystem; FOXA2 and FOXA3 transcription factor networks, organism-specific biosystem; GDP-glucose biosynthesis, organism-specific biosystem;
Function	ATP binding; glucokinase activity; glucose binding; kinase activity; nucleotide binding; protein binding; transferase activity;