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Product datasheet for RC209096

PASK (NM_015148) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PASK (NM_015148) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PASK
Synonyms:	PASKIN; STK37
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC209096 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGGACGGGGGCTTAACAGCCTTTGAAGAGGACCAGAGATGCCTTTCCCAGAGCCTCCCCTTGCCAG
TGTCAGCAGAGGGCCCAGCTGCACAGACCACTGCTGAGCCCAGCAGGTCGTTTTCCTCAGCCCACAGACA
CCTGAGCAGAAGGAATGGGCTTTCCAGACTCTGCCAGAGCAGGACAGCGCTCTCTGAAGACAGATGGAGC
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ACCACAGAGATCCTGGTTGCTAACGACAAAGCTTGCGGGCTCCTGGGGTACAGCAGCCAGGACCTGATTG
GCCAGAAGCTCACGCAGTTCTTTCTGAGGTCAGATTCTGATGTGGTGGAGGCCCTCAGCGAGGAGCACAT
GGAGGCCGACGGCCACGCTGCGGTGGTGTTTGGCACGGTGGTGGACATCATCAGCCGTAGTGGGGAGAAG
ATTCCAGTGTCTGTGTGGATGAAGAGGATGCGGCAGGAGCGCCGCCTATGCTGCGTGGTGGTCCTGGAGC
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TCAGACTGAGCTGATTGCTGGAGGCCAGCTCCTTTCCTGCCTCTCACCTCAGCCTGCTCCAGGGGTGGAC

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TGGGGAGAGAGGAACCTGTGGCAATAGAGAGCCCCGGACAGGATCTTCTGGGAGAAAGCAGGTCTGAACC
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC209096 protein sequence
Red=Cloning site Green=Tags(s)

MEDGGLTAFEEDQRCLSQSLPLPVSAEGPAAQTTAEPSRSFSSAHRHLSRRNGLSRLCQSRTALSEDRWS
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LKDIIHRDIKDENIVIAEDFTIKLIDFGSAAYLERGKLFYTFCGTIEYCAPEVLMGNPYRGPELEMWSLG
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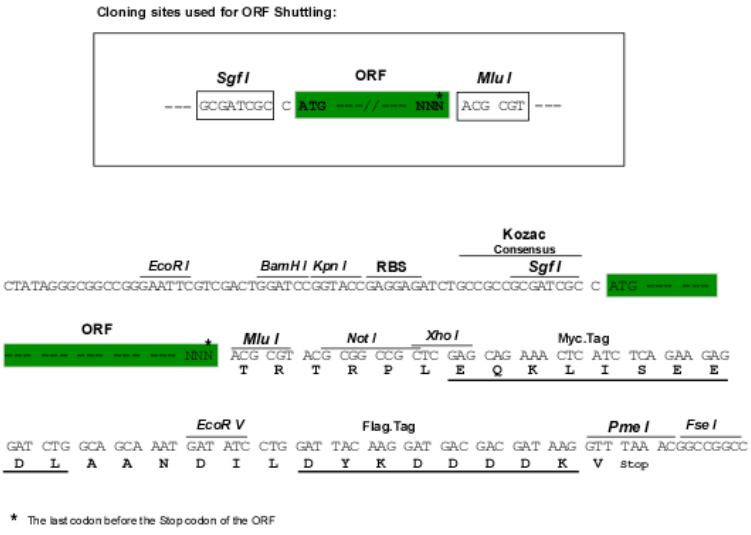
TWEEVFRVNKPESGVLSAASLEMGNRSLSDVAQAQELCGGPVPGEAPNGQGCLHPGDPRLLTS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

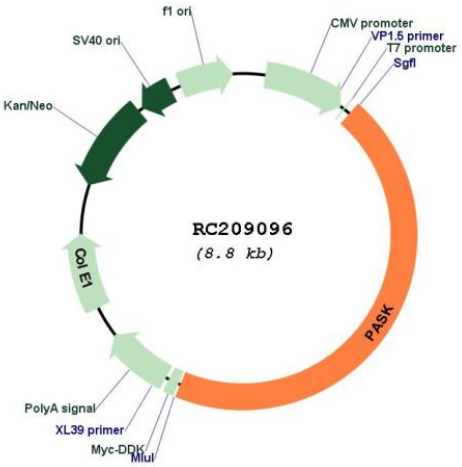
Chromatograms: https://cdn.origene.com/chromatograms/mk6220_f03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_015148
ORF Size:	3969 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_015148.4
RefSeq Size:	4588 bp
RefSeq ORF:	3972 bp
Locus ID:	23178
UniProt ID:	Q96RG2
Cytogenetics:	2q37.3

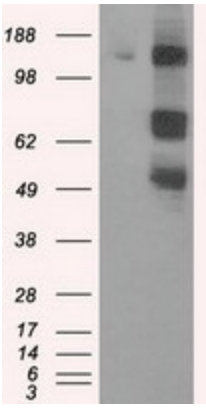
Domains: S_TKc

Protein Families: Druggable Genome, Protein Kinase, Stem cell - Pluripotency

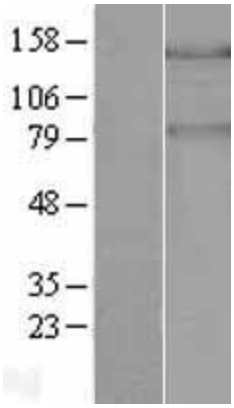
MW: 142.9 kDa

Gene Summary: This gene encodes a member of the serine/threonine kinase family that contains two PAS domains. Expression of this gene is regulated by glucose, and the encoded protein plays a role in the regulation of insulin gene expression. Downregulation of this gene may play a role in type 2 diabetes. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Nov 2011]

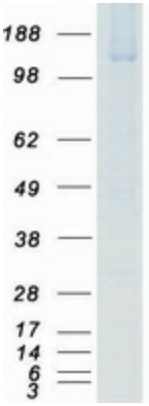
Product images:



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PASK (Cat# RC209096, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PASK(Cat# [TA500826]). Positive lysates [LY414744] (100ug) and [LC414744] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY414744]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209096 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PASK protein (Cat# [TP309096]). The protein was produced from HEK293T cells transfected with PASK cDNA clone (Cat# RC209096) using MegaTran 2.0 (Cat# [TT210002]).