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Product datasheet for RC221398

FAK (PTK2) (NM_005607) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FAK (PTK2) (NM_005607) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PTK2
Synonyms:	FADK; FADK 1; FAK; FAK1; FRNK; p125FAK; pp125FAK; PPP1R71
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC221398 representing NM_005607
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
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ATGATCTCGGCTGACTGCAACCTCTGCCTCCCAGAATATGACAGATACCTAGCATCTAGCAAAATAATGG
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CTTCAAGAAGCCTTAACAATGCGTCAGTTTGACCATCCTCATATTGTGAAGCTGATTGGAGTCATCACAG
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Protein Sequence:

>RC221398 representing NM_005607
Red=Cloning site Green=Tags(s)

MISADCNLCLPEYDRYLASSKIMAAAYLDPNLNHTPNSSTKTHLGTGMERSPGAMERVLKVFHYFESNSE
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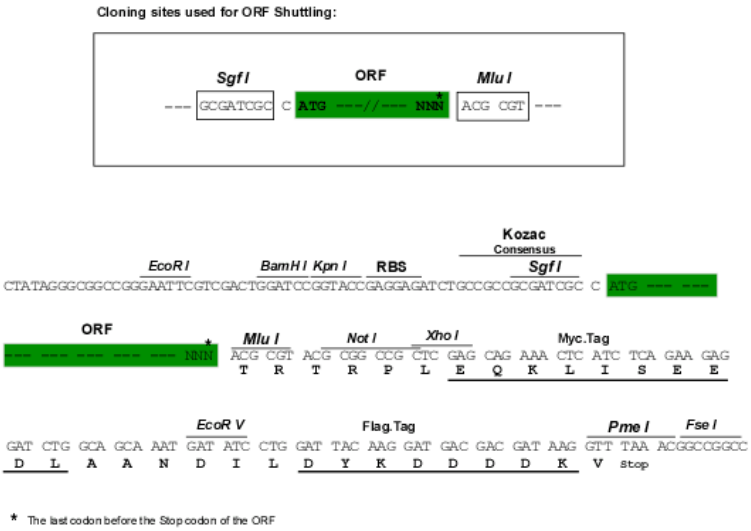
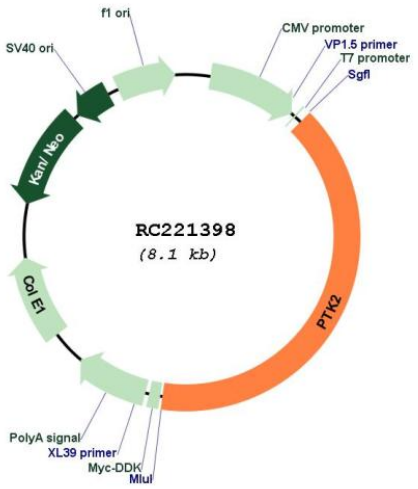
Chromatograms: https://cdn.origene.com/chromatograms/mg3832_a01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



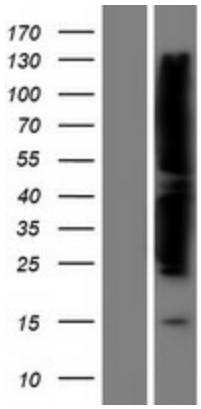
ACCN: NM_005607

ORF Size: 3222 bp

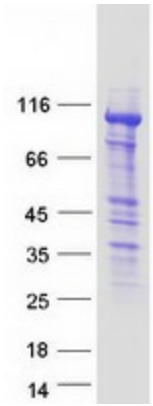
OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery. 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_005607.5
RefSeq Size:	4442 bp
RefSeq ORF:	3225 bp
Locus ID:	5747
Cytogenetics:	8q24.3
Domains:	B41, pkinase, TyrKc, S_TKc, Focal_AT
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Axon guidance, Chemokine signaling pathway, ErbB signaling pathway, Focal adhesion, Leukocyte transendothelial migration, Pathways in cancer, Regulation of actin cytoskeleton, Small cell lung cancer, VEGF signaling pathway
MW:	121.5 kDa

Gene Summary: This gene encodes a cytoplasmic protein tyrosine kinase which is found concentrated in the focal adhesions that form between cells growing in the presence of extracellular matrix constituents. The encoded protein is a member of the FAK subfamily of protein tyrosine kinases but lacks significant sequence similarity to kinases from other subfamilies. Activation of this gene may be an important early step in cell growth and intracellular signal transduction pathways triggered in response to certain neural peptides or to cell interactions with the extracellular matrix. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jun 2017]

Product images:



Western blot validation of overexpression lysate (Cat# [LY417186]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221398 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PTK2 protein (Cat# [TP321398]). The protein was produced from HEK293T cells transfected with PTK2 cDNA clone (Cat# RC221398) using MegaTran 2.0 (Cat# [TT210002]).