OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for MC215963

Ptk6 (NM_009184) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ptk6 (NM_009184) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Ptk6
Synonyms:	BRK; Sik; tks; Tksk
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

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Fully Sequenced ORF:

>MC215963 representing NM_009184
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGTGTCTTGGGACAAGGCTCACCTGGGTCCTAAGTATGTGGGCCTCTGGGACTTCAAGGCACGGACAG
ATGAGGAGCTGAGCTTTCAGGCAGGAGACCTCCTCCATGTTACCAAGAAGGAGGAACTGTGGTGGTGGGC
CACCCTGCTGGATGCAGAAGGCAAGGCCTTGGCTGAGGGCTATGTGCCTCACAACTACCTGGCTGAGAAG
GAAACTGTGGAGTCTGAACCGTGGTTCTTTGGTTGCATCTCCCGCTCAGAGGCCATGCACAGGCTGCAGG
CTGAGGACAACTCGAAGGGTGCCTTCCTGATCAGAGTCAGCCAGAAGCCAGGAGCAGACTATGTCCTCTC
TGTCCGGGATGCTCAGGCCGTGCGACATTACAGGATCTGGAAGAACAACGAGGGCCGGCTGCACCTGAAT
GAGGCGGTATCCTTCTCCAATCTGTCTGAGCTTGTGGACTACCATAAGACCCAGAGCCTGTCTCATGGCC
TACAGCTGTCCATGCCCTGCTGGAAGCACAAAACTGAGCCCTTGCCCCACTGGGATGACTGGGAGAGGCC
GAGGGAGGAGTTCACACTCTGTAAGAAGCTGGGGGCCGGCTACTTTGGGGAGGTCTTTGAAGCGCTCTGG
AAAGGCCAGGTCCATGTGGCTGTGAAGGTGATCTCTAGAGACAATCTCCTGCACCAGCACACCTTCCAGG
CTGAGATTCAGGCCATGAAGAAGCTGCGGCACAAGCACATCCTGTCACTGTACGCTGTGGCGACTGCAGG
GGACCCGGTCTACATCATCACGGAGCTCATGCCCAAGGGGAACCTGCTGCAGCTACTGCGTGACTCTGAT
GAGAAAGCCCTGCCTATTTTGGAGCTGGTGGACTTTGCATCACAGGTTGCTGAGGGCATGTGCTACCTGG
AATCTCAGAATTACATCCACCGTGACCTGGCTGCAAGGAACGTTCTTGTTACAGAGAACAATCTCTGCAA
AGTGGGGGACTTTGGGCTTGCCAGGCTTGTCAAGGAGGACATCTACCTTTCCCATGAGCACAATGTCCCC
TACAAATGGACAGCACCTGAGGCACTTTCCCGAGGGCATTACTCCATCAAGTCTGATGTCTGGTCTTTTG
GAGTTCTTCTTCATGAAATTTTCAGCAGGGGGCAGATGCCCTACCCAGGCATGTCCAATCATGAAACCTT
CCTGAGGGTGGATGCCGGCTACCGCATGCCCTGCCCTCTGGAGTGCCCACCCAACATACACAAGCTGATG
CTCAGCTGCTGGAGCAGAGACCCCAAGCAGAGACCTTGCTTCAAAGACCTGTGTGAGAAACTCACAGGTA
TCACCAGGTATGAGAACCTGGTCTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_009184

Insert Size: 1356 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_009184.2, NP_033210.1
RefSeq Size:	2286 bp
RefSeq ORF:	1356 bp
Locus ID:	20459
UniProt ID:	Q64434
Cytogenetics:	2 103.62 cM
Gene Summary:	Non-receptor tyrosine-protein kinase implicated in the regulation of a variety of signaling pathways that control the differentiation and maintenance of normal epithelia, as well as tumor growth. Function seems to be context dependent and differ depending on cell type, as well as its intracellular localization. A number of potential nuclear and cytoplasmic substrates have been identified. These include the RNA-binding proteins: KHDRBS1/SAM68, KHDRBS2/SLM1, KHDRBS3/SLM2 and SFPQ/PSF; transcription factors: STAT3 and STAT5A/B and a variety of signaling molecules: ARHGAP35/p190RhoGAP, PXN/paxillin, BTK/ATK, STAP2/BKS. Associates also with a variety of proteins that are likely upstream of PTK6 in various signaling pathways, or for which PTK6 may play an adapter-like role. These proteins include ADAM15, EGFR, ERBB2, ERBB3 and IRS4. In normal or non-tumorigenic tissues, PTK6 promotes cellular differentiation and apoptosis. In tumors PTK6 contributes to cancer progression by sensitizing cells to mitogenic signals and enhancing proliferation, anchorage-independent survival and migration/invasion. Association with EGFR, ERBB2, ERBB3 may contribute to mammary tumor development and growth through enhancement of EGF-induced signaling via BTK/AKT and PI3 kinase. Contributes to migration and proliferation by contributing to EGF-mediated phosphorylation of ARHGAP35/p190RhoGAP, which promotes association with RASA1/p120RasGAP, inactivating RhoA while activating RAS. EGF stimulation resulted in phosphorylation of PNX/Paxillin by PTK6 and activation of RAC1 via CRK/CrKII, thereby promoting migration and invasion. PTK6 activates STAT3 and STAT5B to promote proliferation. Nuclear PTK6 may be important for regulating growth in normal epithelia, while cytoplasmic PTK6 might activate oncogenic signaling pathways.[UniProtKB/Swiss-Prot Function] Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1). Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.