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Product datasheet for RG228197

CDK5 (NM_001164410) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CDK5 (NM_001164410) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CDK5
Synonyms:	LIS7; PSSALRE
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG228197 representing NM_001164410
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCAGAAATACGAGAAACTGGAAAAGATTGGGGAAGGCACCTACGGAACTGTGTTCAAGGCCAAAAACC
GGGAGACTCATGAGATCGTGGCTCTGAAACGGGTGAGGCTGGATGACGATGATGAGGGTGTGCCGAGTTC
CGCCCTCCGGGAGATCTGCCTACTCAAGGAGCTGAAGCACAAGAACATCGTCAGGCTTCATGACGTCCTG
CACAGCGACAAGAAGCTGACTTTGGTTTTTGAATTCTGTGACCAGGACCTGAAGAAGTATTTTGACAGTT
GCAATGGTGACCTCGATCCTGAGATTGTAAAGAATGGGGAGCTGAAATTGGCTGATTTTGGCCTGGCTCG
AGCCTTTGGGATTCCCGTCCGCTGTTACTCAGCTGAGGTGGTCACACTGTGGTACCGCCCACCGGATGTC
CTCTTTGGGGCCAAGCTGTACTCCACGTCCATCGACATGTGGTCAGCCGGCTGCATCTTTGCAGAGCTGG
CCAATGCTGGGCGGCCTCTTTTTCCCGGCAATGATGTCGATGACCAGTTGAAGAGGATCTTCCGACTGCT
GGGGACGCCCACCGAGGAGCAGTGGCCCTCTATGACCAAGCTGCCAGACTATAAGCCCTATCCGATGTAC
CCGGCCACAACATCCCTGGTGAACGTCGTGCCCAAACTCAATGCCACAGGGAGGGATCTGCTGCAGAACC
TTCTGAAGTGTAACCCTGTCCAGCGTATCTCAGCAGAAGAGGCCCTGCAGCACCCCTACTTCTCCGACTT
CTGTCCGCCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

View online »

Protein Sequence:

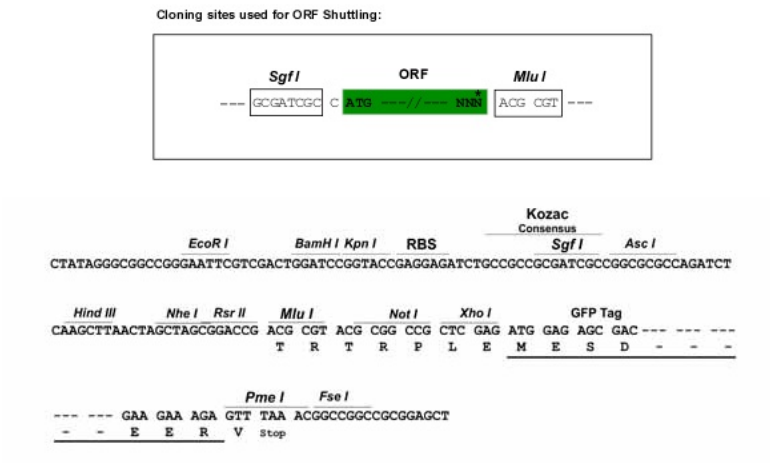
>RG228197 representing NM_001164410
Red=Cloning site Green=Tags(s)

MQKYEKLEKIGEGTYGTVFKAKNRETHEIVALKRVRLDDDDEGVPSSALREICLLKELKHKNIVRLHDVL
HSDKKLTLVFEFCDQDLKKYFDSCNGDLDPEIVKNGELKLADFGLARAFGIPVRCYSAEVVTLWYRPPDV
LFGAKLYSTSIDMWSAGCIFAELANAGRPLFPGNDVDDQLKRIFRLLGTPTEEQWPSMTKLPDYKPYPMY
PATTSLVNVVPKLNATGRDLLQNLLKCNPVQRISAEEALQHPYFSDFCPP

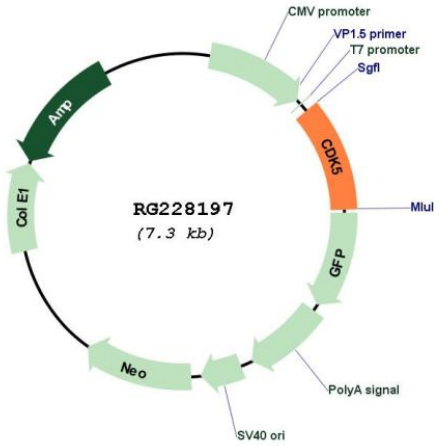
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001164410

ORF Size: 780 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_001164410.3
RefSeq Size:	1111 bp
RefSeq ORF:	783 bp
Locus ID:	1020
UniProt ID:	Q00535
Cytogenetics:	7q36.1
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Alzheimer's disease, Axon guidance
Gene Summary:	This gene encodes a proline-directed serine/threonine kinase that is a member of the cyclin-dependent kinase family of proteins. Unlike other members of the family, the protein encoded by this gene does not directly control cell cycle regulation. Instead the protein, which is predominantly expressed at high levels in mammalian postmitotic central nervous system neurons, functions in diverse processes such as synaptic plasticity and neuronal migration through phosphorylation of proteins required for cytoskeletal organization, endocytosis and exocytosis, and apoptosis. In humans, an allelic variant of the gene that results in undetectable levels of the protein has been associated with lethal autosomal recessive lissencephaly-7. Alternative splicing results in multiple transcript variants. [provided by RefSeq, May 2015]