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Product datasheet for SC329783

Glycerol kinase (GK) (NM_001205019) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: Glycerol kinase (GK) (NM_001205019) Human Untagged Clone

Tag: Tag Free

Symbol: GK

Synonyms: GK1; GKD

Vector: pCMV6-Entry (PS100001)

Fully Sequenced ORF:

>SC329783 representing NM_001205019.
Blue=Insert sequence Red=Cloning site Green=Tag(s)

ATGGCAGCCTCAAAGAAGGCAGTTTTGGGGCCATTGGTGGGGGCGGTGGACCAGGGCACCAGTTCGACG
CGCTTTTTGGTTTTCAATTCAAAAACAGCTGAACTACTTAGTCATCATCAAGTAGAAATAAAACAAGAG
TTCCCAAGAGAAGGATGGGTGGAACAGGACCCTAAGGAAATTCTACATTCTGTCTATGAGTGTATAGAG
AAAACATGTGAGAAACTTGGACAGCTCAATATTGATATTTCCAACATAAAAGCTATTGGTGTCAGCAAC
CAGAGGGAAACCACTGTAGTCTGGGACAAGATAACTGGAGAGCCTCTCTACAATGCTGTGGTGTGGCTT
GATCTAAGAACCCAGTCTACCGTTGAGAGTCTTAGTAAAAGAATTCCAGGAAATAATAACTTTGTCAAG
TCCAAGACAGGCCTTCCACTTAGCACTTACTTCAGTGCAGTGAAACTTCGTTGGCTCCTTGACAATGTG
AGAAAAGTTCAAAAGGCCGTTGAAGAAAAACGAGCTCTTTTTGGGACTATTGATTCATGGCTTATTTGG
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CCAAATGTCCGGAGTTCTTCTGAGATCTATGGCCTAATGAAAATCTCTCATAGCGTGAAAGCTGGGGCC
TTGGAAGGTGTGCCAATATCTGGGTGTTTAGGGGACCAGTCTGCTGCATTGGTGGGACAAATGTGCTTC
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GTATTTTCTGATCATGGCCTTCTCACCACAGTGGCTTACAAACTTGGCAGAGACAAACCAGTATATTAT
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AAAATTCTTATGCAGCTACAAGCAGACATTCTGTATATACCAGTAGTGAAGCCCTCAATGCCCGAAACC
ACTGCACTGGGTGCGGCTATGGCGGCAGGGGCTGCAGAAGGAGTCGGCGTATGGAGTCTCGAACCCGAG
GATTTGTCTGCCGTCACGATGGAGCGGTTTGAACCTCAGATTAATGCGGAGGAAAGTGAAATTCGTTAT
TCTACATGGAAGAAAGCTGTGATGAAGTCAATGGGTTGGGTTACAACTCAATCTCCAGAAAGTGGTGAC
CCTAGTATCTTCTGTAGTCTGCCCTTGGGCTTTTTTATAGTGAGTAGCATGGTAATGTTAATCGGAGCA
AGGTACATCTCAGGTATTCCATAA

Restriction Sites: SgfI-MluI

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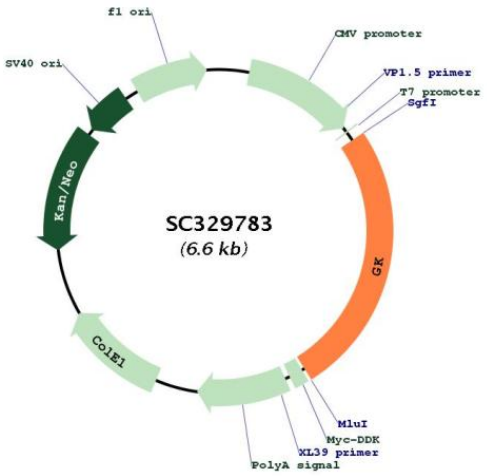
Plasmid Map:



ACCN:	NM_001205019
Insert Size:	1680 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_001205019.1
RefSeq Size:	4590 bp
RefSeq ORF:	1680 bp
Locus ID:	2710
UniProt ID:	P32189
Cytogenetics:	Xp21.2
Protein Families:	Druggable Genome

Protein Pathways:	Glycerolipid metabolism, Metabolic pathways, PPAR signaling pathway
MW:	61.2 kDa
Gene Summary:	The protein encoded by this gene belongs to the FGGY kinase family. This protein is a key enzyme in the regulation of glycerol uptake and metabolism. It catalyzes the phosphorylation of glycerol by ATP, yielding ADP and glycerol-3-phosphate. Mutations in this gene are associated with glycerol kinase deficiency (GKD). Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Mar 2011] Transcript Variant: This variant (4) contains an additional in-frame coding exon at the 3' end compared to variant 1. This results in a longer isoform (d) with a protein segment not found in isoform a. The exon combination used for this variant is inferred, however, there is cross-species evidence for the existence of such a variant in mouse (AK044308:BAC31861) and cow (BC122692.1:AAI22693.1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.