

## Product datasheet for **MC216354**

### **Gck (NM\_010292) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Gck (NM_010292) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Gck
Synonyms:	Gk; GLK; Gls006; HK4; HKIV; Hlb62; HXKP; MODY2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**Fully Sequenced ORF:** >MC216354 representing NM\_010292  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCTGGATGACAGAGCCAGGATGGAGGCCACCAAGAAGGAAAAGGTAGAGCAGATCCTGGCAGAGTTCC  
 AGCTGCAGGAGGAAGACCTGAAGAAGGTGATGAGCCGGATGCAGAAGGAGATGGACCGTGGCCTGAAGCT  
 GGAGACCCATCAGGAGGCCAGTGTAAAGATGTTGCCACCTACGTGCGTTCACCCAGAAAGGCTCAGAA  
 GTTGGAGACTTTCTCCTTAGACCTGGGAGGAACCAACTTCAGGGTGTGCTGGTAAAAGTGGGGGAGG  
 GGGAGGCAGGACAGTGGAGCGTGAAGACGAAACACCAGATGTATTCCATCCCCGAGGACGCCATGACGGG  
 CACTGCGGAGATGCTCTTTGACTACATCTCTGAGTGCATCTGACTTCTGGACAAGCATCAGATGAAA  
 CACAAGAACTACCCCTGGGCTCACCTTCTCCTCCCTGTAAGGCACGAAGACATAGACAAGGGCATCC  
 TGCTCAACTGGACCAAGGGCTTCAAGGCCTCCGGAGCAGAAGGGAACAACATCGTGGGACTTCTCCGAGA  
 TGCTATCAAGAGGAGAGGGGACTTTGAGATGGATGTGGTGGCAATGGTGAATGACACGGTGGCCACAATG  
 ATCTCCTGCTACTATGAAGACCCCAATGTGAGGTCGGCATGATTGTGGGACCCGGCTGCAACGCCTGCT  
 ACATGGAGGAGATGCAGAATGTGGAGCTGGTGGAAAGCGATGAGGGGCGCATGTGTGTCAACACAGAGTG  
 GGGCGCCTTCGGGAACCTCCGGTGAAGTGGACGAGTTTCTCCTGGAGTACGACCGGATGGTGGATGAGAGC  
 TCAGTGAACCCCGGTGAGCAGCTGTACGAAAAGATCATTGGCGGAAAGTACATGGGCGAGCTGGTACGAC  
 TTGTGCTGCTCAAGCTGGTAGAGGAGAATCTTCTGTTCCACGGAGAGGCCCTCAGAGCAGCTGCGCACACG  
 TGGTGTCTTTGAGACCCGTTTGTGTCGAGGTGGAGAGCGACTCTGGGGACCGAAGGCAGATCCTTAAC  
 ATCCTGAGCACTCTGGGCCTTCGACCCTCTGTCGCCGACTGCGACATTGTGCGCCGTGCCTGTAAAAGCG  
 TGTCACACTCGCGCCGCCACATGTGCTCAGCAGGACTAGCGGGGGTCAATAATCGCATGCGCGAAAGCCG  
 CAGTGAGGACGTGATGCGCATCACGGTGGGCGTGGATGGCTCCGTGTACAAGCTGCACCCGAGCTTCAAG  
 GAGCGGTTTTACGCCAGTGTGCGCAGGCTGACACCCAAGTGCAGAAATCACCTTATTGAATCAGAGGAGG  
 GCAGCGCAGGGGAGCCGACTGGTCTCTGCGGTGGCCTGCAAGAAGGCTTGCATGCTGGCCAG**TGA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** Sgfl-Mlul
- ACCN:** NM\_010292
- Insert Size:** 1398 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\\_010292.5](#), [NP\\_034422.2](#)

RefSeq Size: 2727 bp

RefSeq ORF: 1398 bp

Locus ID: 103988

UniProt ID: [P52792](#)

Cytogenetics: 11 3.88 cM

**Gene Summary:** Catalyzes the initial step in utilization of glucose by the beta-cell and liver at physiological glucose concentration. Pancreatic glucokinase plays an important role in modulating insulin secretion. Hepatic glucokinase helps to facilitate the uptake and conversion of glucose by acting as an insulin-sensitive determinant of hepatic glucose usage.[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) represents the longer transcript and encodes the isoform expressed in pancreatic islet beta cells. 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.