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Product datasheet for TP322793M

Glucokinase (GCK) (NM_033507) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human glucokinase (hexokinase 4) (GCK), transcript variant 2, 100 µg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC222793 representing NM_033507 Red=Cloning site Green=Tags(s) MAMDVTRSQAQTALTLVEQILAEFQLQEEDLKKVMRRMQKEMDRGLRLETHEEASVKMLPTYVRSTPEGS EVGDFLSLDLGGTNFRVMLVKVGEGEEGQWSVKTKHQMYSIPEDAMTGTAEMLFDYISECISDFLDKHQM KHKKLPLGFTFSFPVRHEDIDKGILLNWTKGFKASGAEGNNVVGLLRDAIKRRGDFEMDVVAMVNDTVAT MISCYYEDHQCEVGMIVGTGCNACYMEEMQNVELVEGDEGRMCVNTEWGAFGDSGELDEFLLEYDRLVDE SSANPGQQLYEKLIGGKYMGELVRLVLLRLVDENLLFHGEASEQLRTRGAFETRFVSQVESDTGDRKQIY NILSTLGLRPSTTDCDIVRRACESVSTRAAHMCSAGLAGVINRMRESRSEDVMRITVGVDGSVYKLHPSF KERFHASVRRLTPSCEITFIESEEGSGRGAALVSAVACKKACMLGQ TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Tag:	C-Myc/DDK
Predicted MW:	52 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	NP_277042

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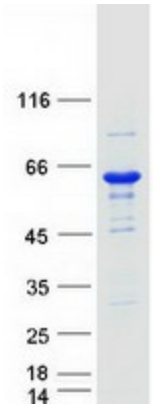
Locus ID:	2645
UniProt ID:	P35557
RefSeq Size:	2442
Cytogenetics:	7p13
RefSeq ORF:	1398
Synonyms:	FGQTL3; GK; GLK; HHF3; HK4; HKIV; HXKP; LGLK; MODY2; PNDM1
Summary:	This gene encodes a member of the hexokinase family of proteins. Hexokinases phosphorylate glucose to produce glucose-6-phosphate, the first step in most glucose metabolism pathways. In contrast to other forms of hexokinase, this enzyme is not inhibited by its product glucose-6-phosphate but remains active while glucose is abundant. The use of multiple promoters and alternative splicing of this gene result in distinct protein isoforms that exhibit tissue-specific expression in the pancreas and liver. In the pancreas, this enzyme plays a role in glucose-stimulated insulin secretion, while in the liver, this enzyme is important in glucose uptake and conversion to glycogen. Mutations in this gene that alter enzyme activity have been associated with multiple types of diabetes and hyperinsulinemic hypoglycemia. [provided by RefSeq, Aug 2017]
Protein Families:	Druggable Genome
Protein Pathways:	Amino sugar and nucleotide sugar metabolism, Galactose metabolism, Glycolysis / Gluconeogenesis, Insulin signaling pathway, Maturity onset diabetes of the young, Metabolic pathways, Starch and sucrose metabolism, Type II diabetes mellitus

Product images:



Coomassie blue staining of purified GCK protein (Cat# [TP322793]). The protein was produced from HEK293T cells transfected with GCK cDNA clone (Cat# [RC222793]) using MegaTran 2.0 (Cat# [TT210002]).