Data Sheet (Cat.No.TMPH-01388)

GCKR Protein, Human, Recombinant (His & SUMO)

General Information

Synonyms: Glucokinase regulator;Glucokinase regulatory protein;GCKR;GKRP

Protein Construction: 1-625 aa

Species: Human

Expression Host: E. coli

Accession: Q14397

Molecular Weight: 84.7 kDa (predicted)

AA Sequence:
MPGTKRFQHVIETPEPGKWELSGYEAAVPITEKSNPLTQDLDKADAENIVRLLGQCDAEIFQEEGQALSTYQR
LYSESILTTMVQVAGKVQEVLKEPDGGLVVLSGGGTSGRMAFLMSVSFNQLMKGLGQKPLYTYLIAGGDRSV
VASREGTEDSALHGIEELKKVAAGKKRVIVIGISVGLSAPFVAGQMDCCMNNTAVFLPVLVGFNPVSMARNDP
IEDWSSTFRQVAERMQKMQEKQKAFVLNPAIGPEGLSGSSRMKGGSATKILLETLLLAAHKTVDQGIAASQRC
LLEILRTFERAHQVTYSQSPKIATLMKSVSTSLEKKGHVYLVGWQTLGIIAIMDGVECIHTFGADFRDVRGFLIGD
HSDMFNQKAELTNQGPQFTFSQEDFLTSILPSLTEIDTVVFIFTLDDNLTEVQTIVEQVKEKTNHIQALAHSTVG
QTLPIPLKKLFPSIISITWPLLFFEYEGNFIQKFQRELSTKWVLNTVSTGAHVLLGKILQNHMLDLRISNSKLFWR
ALAMLQRFSGQSKARCIESLLRAIHFPQPLSDDIRAAPISCHVQVAHEKEQVIPIALLSLLFRCSITEAQAHLAAA
PSVCEAVRSALAGPGQKRTADPLEILEPDVQ

QC Testing

Biological Activity: Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.

Purity: > 90% as determined by SDS-PAGE.

Endotoxin: < 1.0 EU/μg of the protein as determined by the LAL method.

Formulation: Tris-based buffer, 50% glycerol

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Regulates glucokinase (GCK) by forming an inactive complex with this enzyme. Acts by promoting GCK recruitment to the nucleus, possibly to provide a reserve of GCK that can be quickly released in the cytoplasm after a meal. The affinity of GCKR for GCK is modulated by fructose metabolites: GCKR with bound fructose 6-phosphate has increased affinity for GCK, while GCKR with bound fructose 1-phosphate has strongly decreased affinity for GCK and does not inhibit GCK activity.

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