Recombinant ADPGK protein (His tag)

Catalog Number	548109
Synonyms	ADP-GK; ADPGK; RbBP-35
Species	Human
Expression System	E. coli
Accession	Q9BRR6
Molecular Weight	Predictes a molecular mass of 53.45 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 53 kDa band.

Product Information

Sequence Region	23-497
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 23-497 aa (Q9BRR6) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human ADP-dependent glucokinase (ADP-GK) fragment (residues 23-497) is a high-purity protein designed for studying glucose phosphorylation mechanisms. This fragment fully encompasses the ADPK functional domain, making it an ideal tool for investigating kinase activity and energy metabolism pathways in a controlled experimental setting. ADP-dependent glucokinase (ADPGK) catalyzes the phosphorylation of D-glucose to D-glucose 6-phosphate, utilizing ADP as the primary phosphate donor. This reaction is critical in glucose metabolism, with GDP and CDP serving as alternative, though less efficient, phosphate donors. The enzyme is secreted, suggesting potential roles in extracellular glucose regulation or signaling. The full-length protein's activity underscores its importance in energy homeostasis and metabolic research, particularly in understanding ADP-dependent phosphorylation pathways distinct from ATP-dependent kinases.