Recombinant PASK protein (His tag)

Catalog Number	543427
Synonyms	PAS-kinase; PASKIN; hPASK
Species	Human
Expression System	E. coli
Accession	Q96RG2
Molecular Weight	Predictes a molecular mass of 33.68 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 37 kDa band.

Product Information

Sequence Region	988-1267
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 988-1267 aa (Q96RG2) 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 PAS Kinase (PASK) Protein Kinase Domain (aa 988-1267) - A high-purity fragment encompassing the complete serine/threonine-protein kinase domain of PASKIN, ideal for studying energy homeostasis mechanisms, protein translation regulation, and kinase activity assays. PAS domain-containing serine/threonine-protein kinase (PASKIN) is a crucial enzyme involved in cellular energy homeostasis and protein translation regulation. This kinase functions as an environmental sensor that responds to changing conditions such as oxygen levels, glucose availability, and nutritional status. It phosphorylates key substrates including EEF1A1 (enhancing translation efficiency), GYS1 (regulating glycogen synthesis), PDX1, and RPS6. PASKIN plays important roles in glucose-stimulated insulin production and glucagon secretion regulation, though these functions require additional validation. The protein localizes to both cytoplasm and nucleus, with specific localization observed in testis germ cell nuclei and sperm tail midpieces. The provided fragment contains the complete protein kinase domain (aa 999-1251), making it particularly valuable for investigating the enzymatic activity and specific domain functions of this important metabolic regulator.