Recombinant CDK16 protein (His tag)

Catalog Number	540148
Synonyms	Cell division protein kinase 16; PCTAIRE-motif protein kinase 1; Serine/threonine-protein kinase PCTAIRE-1
Species	Human
Expression System	E. coli
Accession	Q00536
Molecular Weight	Predictes a molecular mass of 45.21 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 47 kDa band.

Product Information

Sequence Region	116-496
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 116-496 aa (Q00536) 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 CDK16 protein fragment (116-496) is a high-purity, functional tool designed for studying the kinase activity and vesicle-mediated transport roles of Cyclin-dependent kinase 16. This fragment fully encompasses the protein kinase domain, making it ideal for in vitro enzymatic assays, exocytosis research, and neuronal development studies. Cyclin-dependent kinase 16 (CDK16) is a serine/threonine-protein kinase that plays critical roles in vesicle-mediated transport processes, exocytosis, and insulin secretion regulation. The full-length protein localizes to the cytoplasm, secretory vesicles, and cell membrane, where it phosphorylates key substrates like NSF to regulate oligomerization and GH1 release in neurons. CDK16 is essential for normal spermatogenesis, neuron differentiation, and dendrite development, with implications in metabolic and neurological research. The recombinant fragment (116-496) retains the core kinase domain, enabling focused investigation into these mechanisms without interference from regulatory regions.