Recombinant CDK14 protein (His tag)

Catalog Number	539602
Synonyms	Cell division protein kinase 14; Serine/threonine-protein kinase PFTAIRE-1; hPFTAIRE1
Species	Human
Expression System	E. coli
Accession	O94921
Molecular Weight	Predictes a molecular mass of 39.92 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 40 kDa band.

Product Information

Sequence Region	132-469
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 132-469 aa (O94921) 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 CDK14 (Cyclin-dependent kinase 14) Fragment (aa 132-469): A high-purity, functional protein kinase domain fragment ideal for investigating cell cycle regulation, Wnt signaling activation, and kinase activity assays in G2/M phase studies. Cyclin-dependent kinase 14 (CDK14) is a serine/threonine-protein kinase that plays a critical role in controlling the eukaryotic cell cycle, with its activity regulated by associated cyclins. It functions as a key regulator of the Wnt signaling pathway during the G2/M phase by phosphorylating LRP6 at Ser-1490, thereby activating Wnt signaling. CDK14 also contributes to cell cycle progression and proliferation through its interaction with CCDN3 and has potential roles in meiosis, neuron differentiation, and as a negative regulator of insulin-responsive glucose transport. The protein localizes to the cell membrane (as a peripheral membrane protein), cytoplasm, and nucleus, where it is recruited to the membrane by CCNY, highlighting its dynamic involvement in multiple cellular compartments and signaling pathways.