Recombinant CD5R1 protein (His tag)

Catalog Number	540326
Synonyms	CDK5 activator 1; Cyclin-dependent kinase 5 regulatory subunit 1; TPKII regulatory subunit; p35; p25; Tau protein kinase II 23 kDa subunit; p23
Species	Human
Expression System	E. coli
Accession	Q15078
Molecular Weight	Predictes a molecular mass of 20.48 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 20 kDa band.

Product Information

Sequence Region	145-307
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 145-307 aa (Q15078) 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 CDK5 Activator 1 (CDK5R1) Fragment (aa 145-307) is a high-purity, soluble protein designed for structural and biochemical studies. This 163-amino acid fragment, derived from the neuron-specific activator of Cyclin-dependent kinase 5 (CDK5), offers a stable and functional unit ideal for investigating CDK5 regulation, neurite outgrowth, and circadian clock mechanisms. Cyclin-dependent kinase 5 activator 1 (CDK5R1) is a neuron-specific regulatory subunit essential for activating CDK5, forming the p35/CDK5 complex critical for neurite outgrowth, cortical lamination, and dendritic spine morphogenesis. It mediates EFNA1-EPHA4 signaling and regulates the circadian clock by phosphorylating CLOCK, influencing transcriptional activity of CLOCK-BMAL1 heterodimers. The full-length protein undergoes cleavage into p35 and p25 isoforms, with p35 localizing to the cell membrane and neuronal projections, while p25 redistributes to cytoplasmic and nuclear regions, impacting subcellular function. This recombinant fragment (aa 145-307) represents a stable, soluble region selected for experimental applications, enabling focused analysis of CDK5 activation pathways without domain-specific constraints.