Recombinant CCND3 protein (His tag)

Catalog Number	537672
Species	Human
Expression System	E. coli
Accession	P30281
Molecular Weight	Predictes a molecular mass of 31.04 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 31 kDa band.

Product Information

Sequence Region	1-260
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 1-260 aa (P30281) 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 G1/S-specific cyclin-D3 (CCND3) Fragment (1-260) is a high-purity protein designed for studying cell cycle regulation. This fragment encompasses the essential Cyclin N-terminal domain, making it an ideal tool for investigating G1/S transition mechanisms and protein interactions in a controlled experimental setting. G1/S-specific cyclin-D3 is a regulatory component of the cyclin D3-CDK4 complex, which phosphorylates and inhibits retinoblastoma (RB) family proteins to control cell-cycle progression during the G1/S transition. By hypophosphorylating RB1 in early G1 phase, it facilitates the dissociation of E2F transcription factors, enabling expression of genes necessary for G1 phase progression. The protein also forms part of the ternary cyclin D3/CDK4/CDKN1B complex, crucial for nuclear translocation and activity, and exhibits CDK4-independent transcriptional coactivator function with ATF5. It localizes to both the nucleus and cytoplasm, reflecting its role in integrating mitogenic and antimitogenic signals to regulate cellular proliferation.