Recombinant 2ABA protein (His tag)

Catalog Number	547141
Synonyms	PP2A subunit B isoform B55-alpha; B55; PP2A subunit B isoform PR55-alpha; PP2A subunit B isoform R2-alpha; PP2A subunit B isoform alpha
Species	Human
Expression System	E. coli
Accession	P63151
Molecular Weight	Predictes a molecular mass of 53.22 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 57 kDa band.

Product Information

Sequence Region	2-447
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 2-447 aa (P63151) 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 Serine/threonine-protein phosphatase 2A 55 kDa regulatory subunit B alpha isoform (PP2A subunit B isoform B55-alpha), corresponding to amino acids 2-447, is a high-quality protein fragment designed for structural and biochemical studies. This fragment represents a stable and soluble unit of the protein, ideal for investigating its critical role in cell cycle regulation, including mitosis entry and exit. The full-length Serine/threonine-protein phosphatase 2A 55 kDa regulatory subunit B alpha isoform, encoded by the PPP2R2A gene in Homo sapiens, serves as a substrate-recognition subunit of protein phosphatase 2A (PP2A). It plays a key role in cell cycle control by regulating mitosis entry and exit, as demonstrated in studies (e.g., PubMed:1849734, PubMed:33108758). This protein is involved in chromosome clustering during late mitosis through dephosphorylation of MKI67 and is essential for PP2A-mediated dephosphorylation of WEE1. This action prevents WEE1 ubiquitin-mediated proteolysis, increases WEE1 protein levels, and promotes the G2/M checkpoint, highlighting its significance in maintaining genomic integrity and cell division processes.