Recombinant PHC3 protein (His tag)

Catalog Number	547778
Synonyms	Early development regulatory protein 3; Homolog of polyhomeotic 3; hPH3
Species	Human
Expression System	E. coli
Accession	Q8NDX5
Molecular Weight	Predictes a molecular mass of 13.68 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 15 kDa band.

Product Information

Sequence Region	880-983
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 880-983 aa (Q8NDX5) 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 PHC3 (Polyhomeotic-like protein 3) Fragment (aa 880-983) is a high-purity protein designed for investigating the SAM domain's role in chromatin remodeling and transcriptional repression. This 104-amino acid fragment provides a targeted tool for studying Polycomb group complex functions in epigenetic regulation. Polyhomeotic-like protein 3 (PHC3) is a crucial component of the Polycomb group (PcG) multiprotein PRC1-like complex, which maintains the transcriptionally repressive state of numerous genes, including Hox genes, throughout development. The PRC1 complex functions through chromatin remodeling and histone modification, specifically mediating monoubiquitination of histone H2A at 'Lys-119', resulting in heritable changes to chromatin expressibility. PHC3 is localized to the nucleus, where it participates in these essential epigenetic regulatory mechanisms. The provided fragment encompasses the SAM domain (aa 919-983), enabling focused research on domain-specific interactions and functions within the broader context of Polycomb-mediated gene silencing.