Recombinant FBX5 protein (His tag)

Catalog Number	543863
Synonyms	Early mitotic inhibitor 1
Species	Human
Expression System	E. coli
Accession	Q9UKT4
Molecular Weight	Predictes a molecular mass of 14.99 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 15 kDa band.

Product Information

Sequence Region	192-307
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 192-307 aa (Q9UKT4) 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	Introducing the recombinant human F-box only protein 5 (FBXO5) fragment (residues 192-307), a high-purity protein designed for studying the critical F-box domain. This fragment serves as an essential tool for researchers investigating cell cycle regulation, APC complex interactions, and ubiquitin ligase mechanisms in mitotic and meiotic processes. F-box only protein 5 (FBXO5), also known as Early mitotic inhibitor 1, is a key regulator of the anaphase-promoting complex (APC) during mitotic and meiotic cell cycles. It functions as both a substrate and inhibitor of the APC-FZR1 complex, playing dual roles in G1 phase as an APC substrate and in S/G2 phases as an APC inhibitor. This protein prevents degradation of APC substrates by blocking substrate access to the D-box coreceptor and suppressing ubiquitin ligation by UBE2C and UBE2S. FBXO5 is crucial for maintaining genome integrity by coordinating DNA replication with mitosis, stabilizing CCNA2 and GMNN to prevent rereplication and DNA damage-induced cellular senescence. The protein localizes to both nucleus and cytoplasm in interphase cells, with specific concentration at the spindle apparatus during mitosis. The provided fragment (192-307) contains the essential F-box domain (250-296), making it particularly valuable for domain-specific functional studies.