Recombinant MD2L2 protein (His tag)

Catalog Number	543836
Synonyms	Mitotic arrest deficient 2-like protein 2; MAD2-like protein 2; REV7 homolog; hREV7
Species	Human
Expression System	E. coli
Accession	Q9UI95
Molecular Weight	Predictes a molecular mass of 25.99 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 27 kDa band.

Product Information

Sequence Region	1-211
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 1-211 aa (Q9UI95) 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 MAD2B (MAD2L2) Fragment (aa 1-211) is a high-purity protein encompassing the complete HORMA domain, essential for studying its roles in DNA damage response, translesion synthesis, and cell cycle regulation. This fragment serves as an ideal tool for investigating domain-specific interactions in DNA repair mechanisms and checkpoint control. The full-length Mitotic spindle assembly checkpoint protein MAD2B (also known as hREV7) functions as a critical adapter protein in multiple biological processes. It mediates the second polymerase switching in translesion DNA synthesis by bridging REV3L and REV1, enabling bypass of DNA lesions that stall replication. As a component of the shieldin complex, MAD2B promotes non-homologous end joining during DNA double-strand break repair in G1/S phase, suppressing DNA end resection and facilitating processes like immunoglobulin class-switch recombination. Additionally, it regulates cell cycle progression by inhibiting APC activation through FZR1/CDC20 and modulates TCF7L2-mediated transcription. MAD2B localizes primarily to the nucleus, with presence at chromosomal double-strand break sites, the cytoskeletal spindle, and cytoplasm, reflecting its multifunctional nature in genomic stability maintenance.