Recombinant GWL protein (His tag)

Catalog Number	547962
Synonyms	GW; GWL; hGWL; Microtubule-associated serine/threonine-protein kinase-like; MAST-L
Species	Human
Expression System	E. coli
Accession	Q96GX5
Molecular Weight	Predictes a molecular mass of 17.48 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 19 kDa band.

Product Information

Sequence Region	741-879
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 741-879 aa (Q96GX5) 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 Serine/threonine-protein kinase greatwall (GW) fragment (residues 741-879) from Homo sapiens. This high-purity protein includes the critical AGC-kinase C-terminal domain, making it an essential tool for investigating kinase regulation, mitotic control mechanisms, and PP2A inactivation pathways in cell cycle research. Serine/threonine-protein kinase greatwall (MASTL gene product) is a crucial regulator of M phase progression, controlling mitosis entry and maintenance through PP2A phosphatase inactivation. The kinase achieves this by phosphorylating ARPP19 and ENSA inhibitors, which specifically target the PPP2R2D subunit of PP2A to maintain high cyclin-B1-CDK1 activity during mitosis. The protein exhibits dynamic subcellular localization: nuclear during interphase, cytoplasmic after nuclear envelope breakdown, centrosomal during mitosis, and cleavage furrow-associated during mitotic exit. Following DNA damage, GWL inhibition contributes to checkpoint recovery. The full-length protein may also participate in megakaryocyte differentiation and has demonstrated histone phosphorylation capability in vitro.