Recombinant MISP protein (His tag)

Catalog Number	540679
Synonyms	Mitotic spindle positioning protein
Species	Human
Expression System	E. coli
Accession	Q8IVT2
Molecular Weight	Predictes a molecular mass of 11.16 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 13 kDa band.

Product Information

Sequence Region	289-367
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 289-367 aa (Q8IVT2) 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 MISP Protein Fragment (aa 289-367) - A highly soluble and stable fragment of the Mitotic interactor and substrate of PLK1 protein, specifically designed for structural biology and biochemical studies of mitotic spindle regulation mechanisms. The full-length MISP protein (Mitotic interactor and substrate of PLK1) plays a critical role in mitotic spindle orientation and mitotic progression. It regulates dynactin distribution at the cell cortex in a PLK1-dependent manner, stabilizing cortical and astral microtubule attachments essential for proper mitotic spindle positioning. MISP may function as a molecular linker between microtubules and the actin cytoskeleton, and has been implicated in directed cell migration, centrosome orientation, and Golgi apparatus organization. The protein predominantly localizes to cortical actin structures during both interphase and mitosis, and is found at focal adhesions, retraction fibers, and membrane protrusions, though it is not detected at microtubules during interphase or at the spindle apparatus during mitosis.