Recombinant MK protein (His tag)

Catalog Number	544481
Synonyms	MK; Amphiregulin-associated protein; ARAP; Midgestation and kidney protein; Neurite outgrowth-promoting factor 2; Neurite outgrowth-promoting protein
Species	Human
Expression System	E. coli
Accession	P21741
Molecular Weight	Predictes a molecular mass of 13.33 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 13 kDa band.

Product Information

Sequence Region	38-143
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 38-143 aa (P21741) 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 Midkine (MK) Fragment (38-143) is a highly stable and soluble protein fragment designed for structural and biochemical studies. This 106-amino acid fragment retains key functional characteristics of the full-length cytokine, making it an ideal tool for investigating growth factor signaling, cell migration, and tissue regeneration mechanisms. Midkine (MK) is a secreted cytokine and growth factor that plays crucial roles in inflammatory responses, cell proliferation, adhesion, survival, and tissue regeneration. It mediates signaling through interactions with cell-surface proteoglycan and non-proteoglycan receptors, including LRP1, ITGB2, and anaplastic lymphoma kinase (ALK). The protein is involved in neutrophil and macrophage recruitment to inflammation sites, promotes neurite outgrowth and neuronal survival, facilitates tissue repair after injury, and regulates processes ranging from angiogenesis to bone formation. As a secreted protein, Midkine functions extracellularly, influencing multiple physiological and pathological processes through complex receptor-mediated signaling pathways.