Recombinant MAGI2 protein (His tag)

Catalog Number	543040
Synonyms	Atrophin-1-interacting protein 1; AIP-1; Atrophin-1-interacting protein A; Membrane-associated guanylate kinase inverted 2; MAGI-2
Species	Human
Expression System	E. coli
Accession	Q86UL8
Molecular Weight	Predictes a molecular mass of 25.42 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 26 kDa band.

Product Information

Sequence Region	303-512
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 303-512 aa (Q86UL8) 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 MAGI2 Fragment (aa 303-512) - A high-purity protein fragment encompassing the WW 2 and PDZ 2 domains of Membrane-associated guanylate kinase, WW and PDZ domain-containing protein 2. This specialized tool enables researchers to investigate the specific molecular interactions and scaffolding functions mediated by these critical domains in neuronal signaling and cellular regulation. The full-length MAGI2 protein functions as a crucial scaffold molecule at synaptic junctions, assembling neurotransmitter receptors and cell adhesion proteins to maintain proper neuronal communication. It plays significant roles in nerve growth factor (NGF)-induced processes, including the recruitment of RAPGEF2 to late endosomes and promoting neurite outgrowth. MAGI2 also regulates activin-mediated signaling in neuronal cells and enhances PTEN's ability to suppress AKT1 activation, positioning it as a key regulator in cellular signaling pathways. Additionally, it contributes to receptor-mediated clathrin-dependent endocytosis required for ciliogenesis. The protein localizes to multiple cellular compartments including the cytoplasm, late endosomes, synapses, cell membrane, centrosome, and cilia, with dynamic redistribution in response to NGF stimulation, highlighting its versatile role in cellular organization and signaling.