Recombinant RANB3 protein (His tag)

Catalog Number	541268
Synonyms	RanBP3
Species	Human
Expression System	E. coli
Accession	Q9H6Z4
Molecular Weight	Predictes a molecular mass of 19.14 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 19 kDa band.

Product Information

Sequence Region	369-524
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 369-524 aa (Q9H6Z4) 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 Ran-binding protein 3 (RanBP3) fragment (residues 369-524) is a high-purity protein designed for nuclear export and TGF-beta signaling studies. This fragment fully encompasses the RanBD1 domain, making it an ideal tool for investigating specific domain functions in cellular transport mechanisms. Ran-binding protein 3 (RanBP3) is a crucial regulator of nucleocytoplasmic transport, acting as a cofactor for XPO1/CRM1-mediated nuclear export by stabilizing export complex interactions. It binds to CHC1/RCC1 to enhance guanine nucleotide exchange activity and serves as a negative regulator of TGF-beta signaling through interaction with SMAD2 and SMAD3 proteins, mediating their nuclear export. RanBP3 localizes to both the cytoplasm and nucleus, with nuclear import promoted by phosphorylation at Ser-126 and dependent on KPNA4, highlighting its dynamic role in cellular signaling and transport pathways.