Recombinant RBP2 protein (His tag)

Catalog Number	544655
Synonyms	358 kDa nucleoporin; Nuclear pore complex protein Nup358; Nucleoporin Nup358; Ran-binding protein 2; RanBP2; p270
Species	Human
Expression System	E. coli
Accession	P49792
Molecular Weight	Predictes a molecular mass of 15.91 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 17 kDa band.

Product Information

Sequence Region	1186-1307
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 1186-1307 aa (P49792) 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	This recombinant protein product features a 122-amino acid fragment (residues 1186-1307) of the human E3 SUMO-protein ligase RanBP2, also known as Nuclear Pore Complex Protein Nup358. The fragment is designed for structural and biochemical studies, offering a stable and soluble unit ideal for investigating the protein's functional domains and interactions. The full-length E3 SUMO-protein ligase RanBP2, encoded by the RANBP2 gene, is a key component of the nuclear pore complex and functions as an E3 ligase that facilitates SUMO1 and SUMO2 conjugation by UBE2I. It plays critical roles in protein import and export, binding transport factors such as Ran-GTP and karyopherins, and is involved in mRNA export regulation by inhibiting EIF4E. Additionally, RanBP2 sumoylates PML, which is essential for proper assembly of PML nuclear bodies, and recruits BICD2 to the nuclear envelope during the G2 phase of the cell cycle. Subcellularly, it localizes to the nucleus, nuclear membrane, nuclear pore complex, and nuclear envelope, and is detected in cytoplasmic filaments and annulate lamellae, highlighting its multifunctional role in nuclear transport and cellular organization.