Recombinant USH1C protein (His tag)

Catalog Number	548625
Synonyms	Antigen NY-CO-38/NY-CO-37; Autoimmune enteropathy-related antigen AIE-75; Protein PDZ-73; Renal carcinoma antigen NY-REN-3; Usher syndrome type-1C protein
Species	Human
Expression System	E. coli
Accession	Q9Y6N9
Molecular Weight	Predictes a molecular mass of 44.52 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 49 kDa band.

Product Information

Sequence Region	1-377
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 1-377 aa (Q9Y6N9) 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	Introducing the recombinant Harmonin (USH1C) fragment (amino acids 1-377), a high-purity protein designed to encompass the critical PDZ 1 and PDZ 2 domains. This fragment serves as an essential tool for investigating the scaffolding and anchoring functions of Harmonin in mechanotransduction and cellular structure organization, providing researchers with a targeted reagent for domain-specific studies. Harmonin, encoded by the USH1C gene, is a multifunctional anchoring and scaffolding protein integral to several physiological processes. It forms part of a functional network with USH1G, CDH23, and MYO7A, mediating mechanotransduction in cochlear hair cells and contributing to the normal development and maintenance of cochlear hair cell bundles. Additionally, within the intermicrovillar adhesion complex (IMAC), Harmonin plays a central regulatory role in brush border differentiation by controlling microvilli organization and length, and it recruits CDHR2, CDHR5, and MYO7B to microvilli tips. Subcellularly, Harmonin localizes to the cytoplasm (cytosol and cytoskeleton) and is enriched in microvilli of the intestinal brush border and at the tips of cochlear hair cell stereocilia, where it colocalizes with F-actin. Its involvement in Usher syndrome type-1C and associations with autoimmune enteropathy and renal carcinoma highlight its biomedical significance.