Recombinant PLSI protein (His tag)

Catalog Number	547308
Synonyms	Intestine-specific plastin; I-plastin
Species	Human
Expression System	E. coli
Accession	Q14651
Molecular Weight	Predictes a molecular mass of 10.79 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 13 kDa band.

Product Information

Sequence Region	1-80
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 1-80 aa (Q14651) 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 Human Plastin-1 Fragment (1-80), a high-purity protein designed to encompass the EF-hand 1 domain. This fragment serves as an essential tool for investigating the actin-bundling mechanisms critical for cellular structures like stereocilia, offering researchers a targeted approach to study domain-specific functions in cytoskeletal dynamics. Plastin-1, also known as intestine-specific plastin or I-plastin, is an actin-bundling protein encoded by the PLS1 gene in humans. It plays a vital role in the formation of stereocilia in the inner ear, where it mediates the liquid packing of actin filaments necessary for these structures to achieve proper dimensions. The protein is localized in the cytoplasm and cell projections, specifically stereocilia, highlighting its importance in cellular architecture and auditory function. The provided fragment (amino acids 1-80) includes the EF-hand 1 domain, enabling focused studies on calcium-binding and regulatory aspects of actin organization.