Recombinant BPIB4 protein (His tag)

Catalog Number	537871
Synonyms	Ligand-binding protein RY2G5; Long palate, lung and nasal epithelium carcinoma-associated protein 4
Species	Human
Expression System	E. coli
Accession	P59827
Molecular Weight	Predictes a molecular mass of 43.52 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 44 kDa band.

Product Information

Sequence Region	228-614
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 228-614 aa (P59827) 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 BPI fold-containing family B member 4 (BPIFB4) fragment (residues 228-614) is a stable, soluble protein designed for structural and functional studies. This 387-amino acid fragment, derived from human BPIFB4, retains key properties for investigating its role in odorant binding and mucosal defense mechanisms. The full-length BPIFB4 protein, also known as Long palate, lung and nasal epithelium carcinoma-associated protein 4, functions as a potential odorant-binding protein that may recognize and transport specific classes of odorants across the mucus layer. It likely serves as a carrier molecule, facilitating odorant access to receptor sites while providing primary defense by removing harmful odorants or pathogenic microorganisms from mucosal surfaces. Additionally, it may help clear excess odorants to enable reception of new stimuli. BPIFB4 is primarily secreted and has also been localized to the cytoplasm, suggesting dual roles in extracellular odorant handling and intracellular processes. The selected fragment (228-614) represents a computationally optimized stable region suitable for biochemical and structural characterization.