Recombinant 6PGL protein (His tag)

Catalog Number	549167
Synonyms	6PGL
Species	Human
Expression System	E. coli
Accession	O95336
Molecular Weight	Predictes a molecular mass of 29.07 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 29 kDa band.

Product Information

Sequence Region	2-258
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 2-258 aa (O95336) 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 6-phosphogluconolactonase (6PGL) fragment (residues 2-258) is a high-purity protein designed for structural and biochemical studies. This soluble and stable fragment retains the catalytic domain essential for hydrolyzing 6-phosphogluconolactone to 6-phosphogluconate, making it ideal for enzyme kinetics and functional assays. 6-phosphogluconolactonase (6PGL), encoded by the PGLS gene in humans, catalyzes the hydrolysis of 6-phosphogluconolactone to 6-phosphogluconate, a critical step in the pentose phosphate pathway. This pathway is vital for nucleotide synthesis and maintaining cellular redox balance. The full-length protein is localized in the cytoplasm, where it supports metabolic processes essential for energy production and antioxidant defense. The provided fragment encompasses the complete functional domain, enabling detailed investigation of its enzymatic mechanisms and role in cellular metabolism.