Recombinant ASSY protein (His tag)

Catalog Number	546633
Synonyms	Citrulline--aspartate ligase
Species	Human
Expression System	E. coli
Accession	P00966
Molecular Weight	Predictes a molecular mass of 48.19 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 49 kDa band.

Product Information

Sequence Region	1-412
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 1-412 aa (P00966) 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 Argininosuccinate Synthase (EC 6.3.4.5), corresponding to amino acids 1-412, is a high-purity, stable fragment designed for structural and biochemical studies. This soluble unit retains key functional regions, making it ideal for investigating urea cycle metabolism and arginine biosynthesis in vitro. Argininosuccinate synthase (ASS1) is a critical enzyme in the urea cycle, a metabolic pathway that converts neurotoxic ammonia into harmless urea in the liver. It catalyzes the ATP-dependent formation of argininosuccinate from citrulline and aspartate, and, in conjunction with argininosuccinate lyase (ASL), facilitates arginine biosynthesis in most tissues. The enzyme is localized to the cytoplasm (cytosol), underscoring its role in central nitrogen metabolism and cellular detoxification processes.