Recombinant SERC protein (His tag)

Catalog Number	541650
Synonyms	Phosphohydroxythreonine aminotransferase; PSAT
Species	Human
Expression System	E. coli
Accession	Q9Y617
Molecular Weight	Predictes a molecular mass of 42.08 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 42 kDa band.

Product Information

Sequence Region	1-370
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 1-370 aa (Q9Y617) 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	This product is a recombinant fragment of human Phosphoserine aminotransferase (PSAT), encompassing residues 1-370. It is designed for structural and biochemical studies, offering a stable and soluble unit that retains key functional domains for investigating its role in L-serine biosynthesis. Phosphoserine aminotransferase (PSAT), encoded by the PSAT1 gene in humans, is a pyridoxal 5'-phosphate-dependent enzyme central to the phosphorylated pathway of L-serine synthesis. It catalyzes the transamination of 3-phosphohydroxypyruvate and L-glutamate to produce O-phosphoserine and alpha-ketoglutarate, representing the second step in converting the glycolytic intermediate 3-phospho-D-glycerate into L-serine. This pathway is essential for cellular serine production, which supports various metabolic processes, including nucleotide and phospholipid synthesis. The provided fragment (1-370) includes the complete functional domain, enabling researchers to explore its catalytic mechanisms and structural features in detail.