Recombinant BCA1 protein (His tag)

Catalog Number	536748
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	Q22460
Gene ID	180890
Molecular Weight	Predictes a molecular mass of 32.34 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 33 kDa band.

Product Information

Sequence Region	1-270
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 1-270 aa (Q22460) 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 Beta carbonic anhydrase 1 (EC 4.2.1.1) fragment (residues 1-270), derived from Caenorhabditis elegans, is a high-quality protein designed for structural and biochemical studies. This fragment retains the enzyme's critical function in the reversible hydration of carbon dioxide, offering a stable and soluble unit ideal for research applications. Beta carbonic anhydrase 1, encoded by the bca-1 gene in Caenorhabditis elegans (UniProt ID: Q22460), catalyzes the reversible hydration of carbon dioxide, a fundamental reaction in biological systems that influences pH regulation and metabolic processes. This enzyme plays a key role in carbon dioxide metabolism, supporting cellular homeostasis. The recombinant fragment (residues 1-270) was selected computationally to ensure stability and solubility, enabling reliable use in experimental analyses without compromising functional relevance.