Recombinant CAH2 protein (His tag)

Catalog Number	541968
Synonyms	Carbonate dehydratase II; Carbonic anhydrase C; CAC; Carbonic anhydrase II; CA-II; Cyanamide hydratase CA2
Species	Human
Expression System	E. coli
Accession	P00918
Molecular Weight	Predictes a molecular mass of 30.77 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 31 kDa band.

Product Information

Sequence Region	2-260
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 2-260 aa (P00918) 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	Introducing recombinant Human Carbonic Anhydrase 2 (CA2) fragment (residues 2-260), a high-purity protein encompassing the complete Alpha-carbonic anhydrase domain. This fragment retains the essential catalytic activity for carbon dioxide hydration and cyanamide conversion, making it an ideal reagent for enzymatic studies, inhibitor screening, and metabolic pathway research. Carbonic Anhydrase 2 (CA2) is a crucial metalloenzyme that catalyzes the reversible hydration of carbon dioxide, playing vital roles in pH regulation, respiration, bone resorption, and fluid secretion. The full-length protein localizes to both the cytoplasm and cell membrane, where it forms functional complexes with transporters like SLC26A6 to facilitate bicarbonate transport. Its involvement in osteoclast differentiation and duodenal epithelial function underscores its significance in physiological and pathological processes. The provided fragment maintains these key functional properties while offering enhanced experimental utility for domain-specific investigations.