

Human CA2/Carbonic anhydrase II Protein

Cat. No. CAS-HM102

Description

Source	Recombinant Human CA2/Carbonic anhydrase II Protein is expressed from HEK293 with His tag at the C-terminus. It contains Ser2-Lys260.
Accession	P00918
Molecular Weight	The protein has a predicted MW of 30.72 kDa. Due to glycosylation, the protein migrates to 31-35 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 1EU per μg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

Formulation and Storage

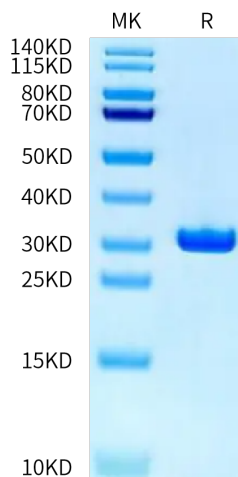
Formulation	Lyophilized from 0.22 μm filtered solution in 20mM Tris, 150mM NaCl (pH 8.0). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. Dissolve the lyophilized protein in distilled water.
Storage	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background

Carbonic anhydrase II (CA II) is a zinc metalloenzyme that catalyzes the reversible interconversion of water and CO₂ to bicarbonate and a proton. CA II is abundant in most cells, and plays a role in numerous processes including gas exchange, epithelial ion transport, respiration, extra- and intracellular pH control, and vascular regulation.

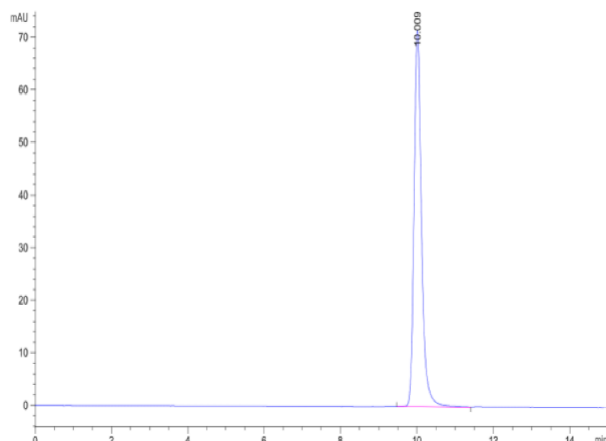
Assay Data

Bis-Tris PAGE



Human CA2 on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

SEC-HPLC



The purity of Human CA2 is greater than 95% as determined by SEC-HPLC.

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Assay Data

Bioactivity Data

Measured by its esterase activity. The specific activity is > 400 pmol/min/μg.