Human CA9/Carbonic Anhydrase IX Protein

Cat. No. CA9-HM401

Description

Source	Recombinant Human CA9/Carbonic Anhydrase IX Protein is expressed from HEK293 with His tag and Avi tag at the C-Terminus.
	It contains Gln38-Asp414.
Accession	Q16790
Molecular Weight	The protein has a predicted MW of 43.7 kDa. Due to glycosylation, the protein migrates to 50-60 kDa based on Tris-Bis PAGE result.
Endotoxin	Less than 1EU per μg by the LAL method.
Purity	> 95% as determined by Tris-Bis PAGE
	> 95% as determined by HPLC

Formulation and Storage

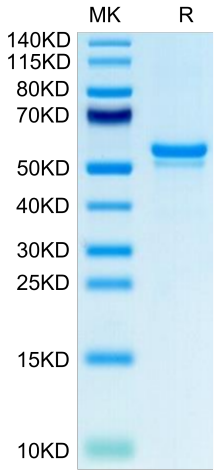
Formulation	Lyophilized from 0.22μm filtered solution in 50mM Tris, 150mM NaCl (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 μg/ml is recommended. Dissolve the lyophilized protein in distilled water.
Storage	-20 to -80°C for 12 months as supplied from date of receipt.-80°C for 3-6 months after reconstitution.2-8°C for 2-7 days after reconstitution.Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background

CA9 is a member of the carbonic anhydrases' family, that is often expressed in cancer cells under hypoxic condition. CA9 expression potentially contributes to the regulation of cancer cell differentiation and mediates tumour-associated genes and signalling pathways, including apoptosis, hypoxia, G2M checkpoint, PI3K/AKR/mTOR signalling and TGF-beta signalling pathways.

Assay Data

Tris-Bis PAGE



Human CA9 on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.

SEC-HPLC

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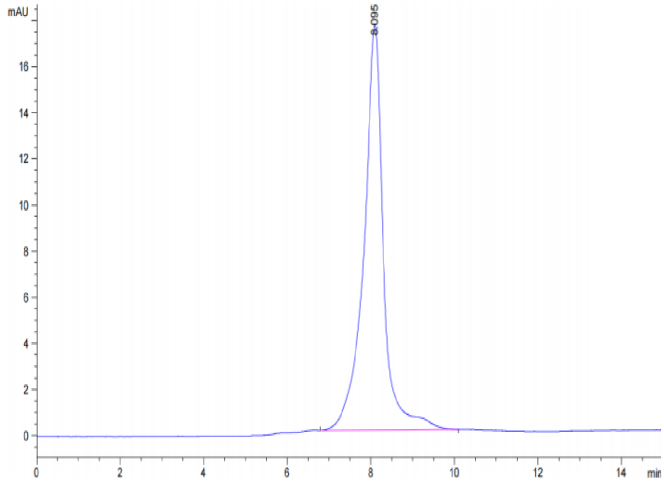
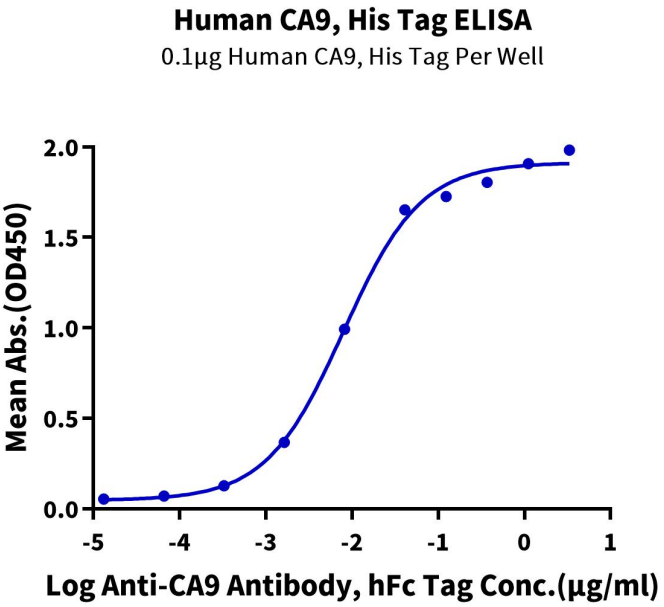
Assay Data



The purity of Human CA9 is greater than 95% as determined by SEC-HPLC.

ELISA Data



Immobilized Human CA9, His Tag at 1μg/ml (100μl/Well) on the plate. Dose response curve for Anti-CA9 Antibody, hFc Tag with the EC50 of 8.0ng/ml determined by ELISA.

Bioactivity Data

Measured by its esterase activity. The specific activity is > 20 pmol/min/μg.