

Human CA9/Carbonic Anhydrase IX Protein

Cat. No. CA9-HM101



Description

Source	Recombinant Human CA9/Carbonic Anhydrase IX Protein is expressed from HEK293 with His tag at the C-terminus.
	It contains Gln38-Asp414.
Accession	Q16790
Molecular Weight	The protein has a predicted MW of 42.58 kDa. Due to glycosylation, the protein migrates to 50-65 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 1 EU per µg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE
	> 95% as determined by HPLC

Formulation and Storage

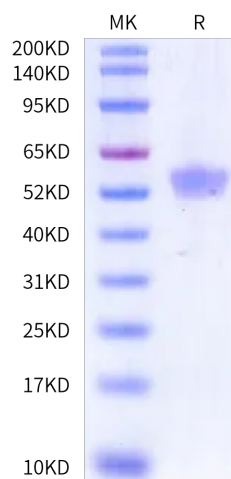
Formulation	Lyophilized from 0.22 µm filtered solution in 50mM Tris, 150mM NaCl (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.
Storage	-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

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.

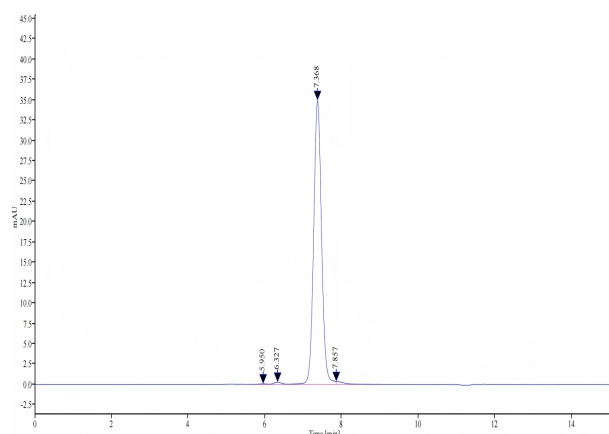
Assay Data

Bis-Tris PAGE



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

SEC-HPLC



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

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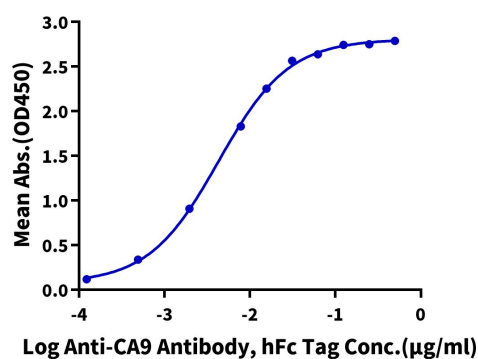


Assay Data

ELISA Data

Human CA9, His Tag ELISA

0.1µg Human CA9, His Tag Per Well



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 4.3ng/ml determined by ELISA.

Bioactivity Data

Measured by its esterase activity. The specific activity is >40 pmol/min/µg.