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	Supplied as 0.22 μm filtered solution in 50mM Tris, 150mM NaCl (pH 7.4).
Storage	Valid for 12 months from date of receipt when stored at -80°C. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background

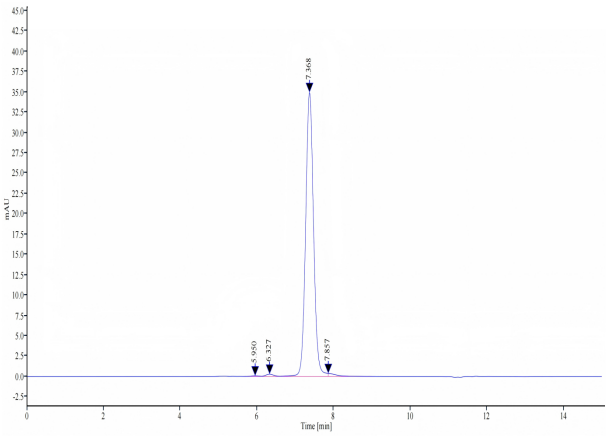
CA9 is a member of the carbonic anhydrases' family, that is often expressed in cancer cells under hypoxic condition. CA9 expression potentially contributes to the regulation of cancer cell differentiation and mediates tumour-associated genes and signalling pathways, including apoptosis, hypoxia, G2M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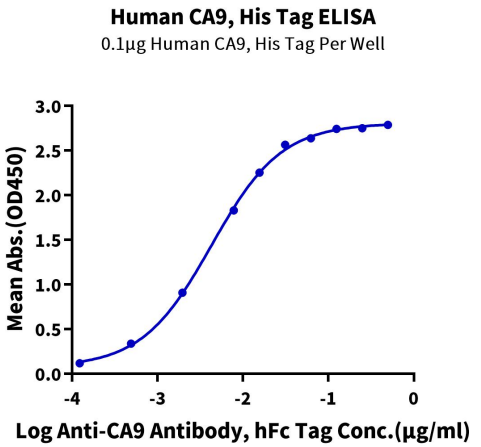
Assay Data

ELISA Data



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.