

Human CA9/Carbonic Anhydrase IX Protein, Ultra Low Endotoxin



Cat. No. CA9-HM201-UL

Description

Source	Recombinant Human CA9/Carbonic Anhydrase IX Protein is expressed from HEK293 with hFc (IgG1) tag at the C-terminus. It contains Gln38-Asp414.
Accession	Q16790
Molecular Weight	The protein has a predicted MW of 66.91 kDa. Due to glycosylation, the protein migrates to 70-80 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 0.01 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 PBS (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

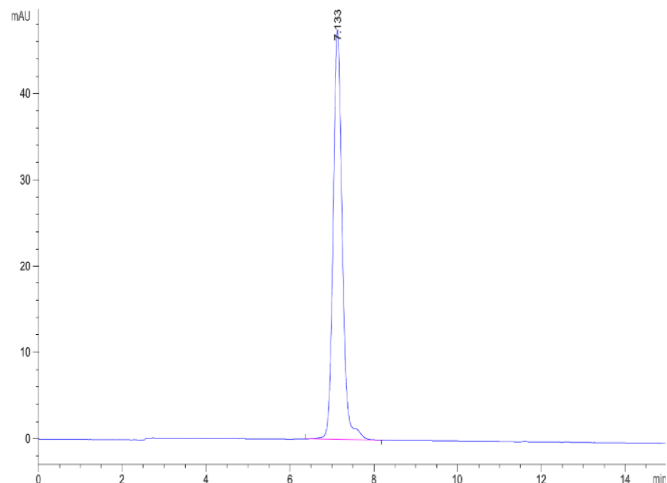
Bis-Tris PAGE



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

SEC-HPLC

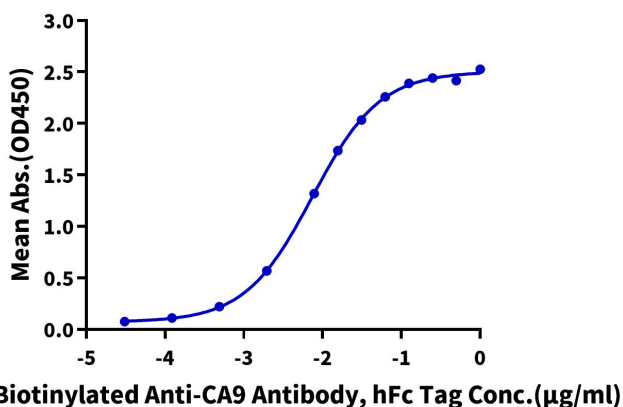
Assay Data



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

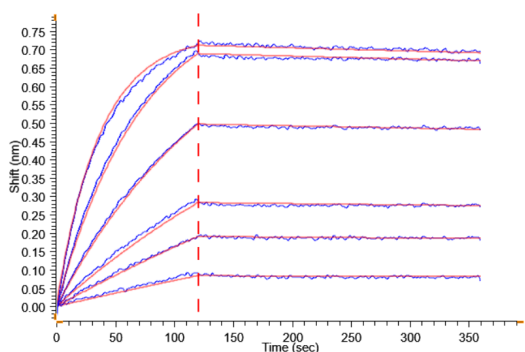
ELISA Data

Human CA9, hFc Tag ELISA
0.1µg Human CA9, hFc Tag Per Well



Immobilized Human CA9, hFc Tag at 1µg/ml (100µl/well) on the plate. Dose response curve for Biotinylated Anti-CA9 Antibody, hFc Tag with the EC50 of 7.4ng/ml determined by ELISA (QC Test).

BLI Data



Loaded Biotinylated Anti-CA9 Antibody, hFc Tag on Streptavidin-Biosensor can bind Human CA9, hFc Tag with an affinity constant of 0.45 nM as determined in BLI assay .

Bioactivity Data

Measured by its esterase activity. The specific activity is > 50 pmol/min/µg (QC Test).