

# Biotinylated Human CA9/Carbonic Anhydrase IX Protein

Cat. No. CA9-HM401B

## Description

<b>Source</b>	Recombinant Biotinylated Human CA9/Carbonic Anhydrase IX Protein is expressed from HEK293 with His tag and Avi tag at the C-Terminus It contains Gln38-Asp414.
<b>Accession</b>	Q16790
<b>Molecular Weight</b>	The protein has a predicted MW of 43.7 kDa. Due to glycosylation, the protein migrates to 52-65 kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 1 EU per µg by the LAL method.
<b>Purity</b>	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

## Formulation and Storage

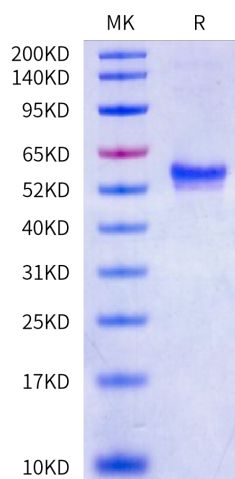
<b>Formulation</b>	Lyophilized from 0.22 µm filtered solution in 50mM Tris, 150mM NaCl (pH 7.5). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.
<b>Storage</b>	-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.

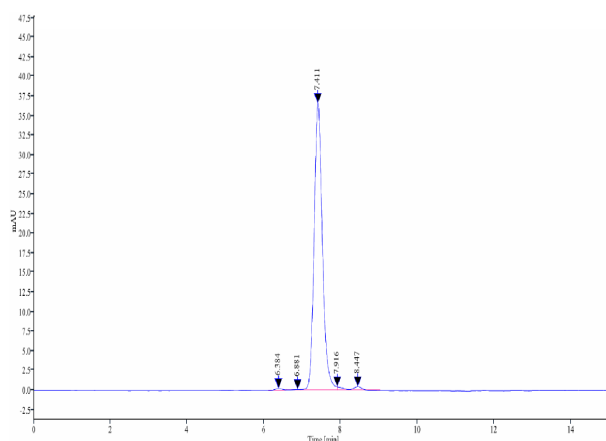
## Assay Data

### Bis-Tris PAGE



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

### SEC-HPLC



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

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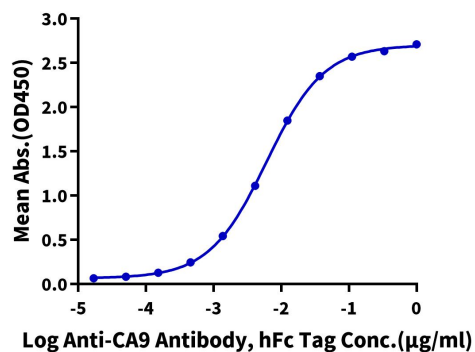
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## Assay Data

### ELISA Data

#### Biotinylated Human CA9, His Avi Tag ELISA

0.05µg Biotinylated Human CA9, His Avi Tag Per Well



Immobilized Biotinylated Human CA9, His Avi Tag at 0.5µg/ml (100µl/well) on the streptavidin precoated plate (5µg/ml). Dose response curve for Anti-CA9 Antibody, hFc Tag with the EC50 of 6.1ng/ml determined by ELISA.

### Bioactivity Data

Measured by its esterase activity. The specific activity is >50 pmol/min/µg.