

# Human CA9/Carbonic Anhydrase IX Protein

Cat. No. CA9-HM102



## Description

<b>Source</b>	Recombinant Human CA9/Carbonic Anhydrase IX Protein is expressed from HEK293 with His tag at the C-terminus. It contains Gln138-Asp414.
<b>Accession</b>	Q16790
<b>Molecular Weight</b>	The protein has a predicted MW of 31.71 kDa. Due to glycosylation, the protein migrates to 32-40 kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 0.1 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

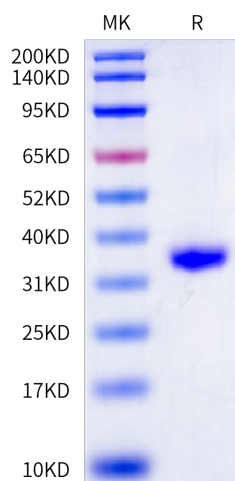
<b>Formulation</b>	Supplied as 0.22 µm filtered solution in 50mM Tris, 150mM NaCl (pH 7.4).
<b>Storage</b>	Valid for 12 months from date of receipt when stored at -80°C. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## 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.

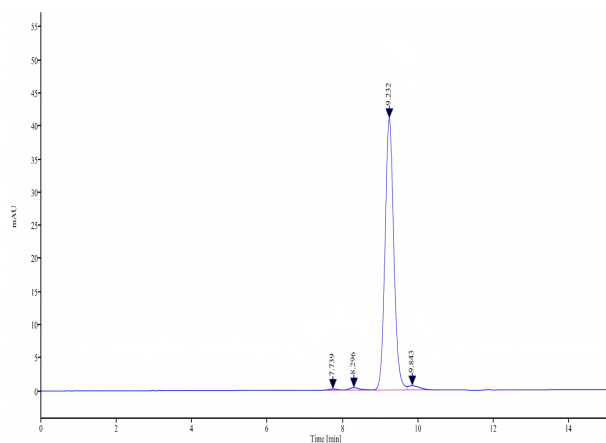
## Assay Data

### 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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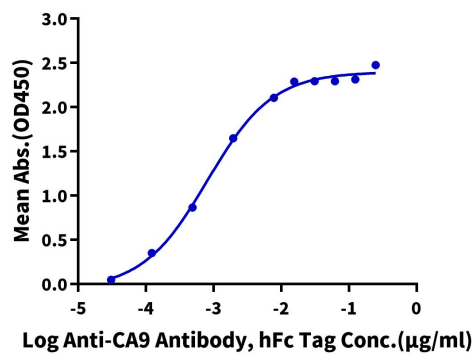
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## Assay Data

### ELISA Data

#### Human CA9, His Tag ELISA

0.05µg Human CA9, His Tag Per Well



Immobilized Human CA9, His Tag at 0.5µg/ml (100µl/well) on the plate. Dose response curve for Anti-CA9 Antibody, hFc Tag with the EC50 of 0.8ng/ml determined by ELISA.

### Bioactivity Data

Measured by its esterase activity. The specific activity is >80 pmol/min/µg.