

# Recombinant Mouse Carbonic Anhydrase IX/CA9 Protein

Catalog No.: RP01495 **Recombinant**

## Sequence Information

Species	Gene ID	Swiss Prot
Mouse	230099	Q8VHB5

### Tags

C-His

### Synonyms

CAIX;CA9;CA-IX;G250;MN;P54;58N;pMW1;CA9

## Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE.

Calculated MW	Observed MW
39.68 kDa	40-55 kDa

### Endotoxin

<0.1EU/μg

### Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Contact

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## Background

Carbonic anhydrases IX (CA IX), also known as membrane antigen MN or CA9, is a member of the carbonic anhydrase (CA) family and may be involved in cell proliferation and cellular transformation. CAs are zinc metalloenzymes that catalyze the reversible hydration of carbon dioxide ( $H_2O + CO_2 = H^+ + HCO_3^-$ ) and thus participate in a variety of biological and physical processes. CA IX protein is expressed primarily in carcinoma cells lines, and the expression is cell density dependent and has been shown to be strongly induced by hypoxia, accordingly facilitates adaptation of tumor cells to hypoxic conditions. It is involved in tumorigenesis through many pathways, such as pH regulation and cell adhesion control. CA IX is used as a marker of tumor hypoxia and as a new therapeutic target for many human carcinomas and cancers.

## Basic Information

### Description

Recombinant Mouse Carbonic Anhydrase IX/CA9 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Gln32-Asp390) of mouse Carbonic Anhydrase IX/CA9 (Accession #NP\_647466.2) fused with a 6×His tag at the C-terminus.

### Bio-Activity

Measured by its esterase activity. The specific activity is >750 pmol/min/μg, as measured under the described conditions.

### Storage

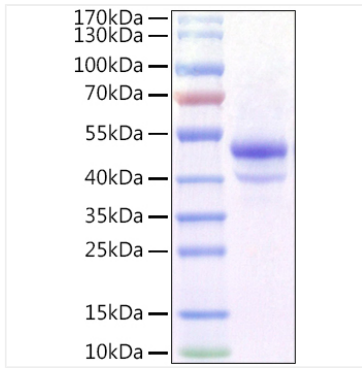
Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

## Validation Data

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Recombinant Mouse Carbonic Anhydrase IX/CA9 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 45-50kDa.