**Product** Data Sheet

Proteins



## Carbonic Anhydrase 9 Protein, Canine (HEK293, His)

Cat. No.: HY-P75454

Synonyms: Carbonic anhydrase 9; CA-IX; P54/58N; pMW1; CA9; G250; MN

Species: HEK293 Source:

Accession: NP\_001138646.1 (Q38-L410)

Gene ID: 611933

Molecular Weight: Approximately 50 kDa

PROPERTIES	
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 $\mu$ m filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu g/mL$ in ddH $_2$ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

## **DESCRIPTION**

Background

Carbonic Anhydrase 9 (CA9) protein plays a crucial role as a catalyst in the conversion between carbon dioxide and water. It facilitates the formation of bicarbonate and hydrogen ions, the dissociated ions of carbonic acid. This enzymatic activity is essential for maintaining proper pH balance and regulating various physiological processes, including acid-base homeostasis, respiration, and ion transport. CA9 protein acts as a key player in the dynamic equilibrium of carbon dioxide and water, contributing to the efficient transport and regulation of these molecules in the body.

Caution: Product has not been fully validated for medical applications. For research use only.

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