Mouse Carbonic Anhydrase VIII / Car8 Protein (His Tag)

Catalog Number: **50767-M08E**

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

AW546993; Ca8; Cals; Cals1; Car8; Carp; RP23-180H12.1; wdl

Protein Construction:

A DNA sequence encoding the mouse CA8 (P28651) (Met 1-Gln 291) was expressed, with a C-terminal polyhistidine tag.

Source: Mouse

Expression Host: E. coli

QC Testing

Purity: > 88 % as determined by SDS-PAGE

Bio Activity:

Measured by its esterase activity . The specific activity is >5 pmoles/min/μg.

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Met 1

Molecular Mass:

The recombinant mouse CA8 comprises 301 amino acids and has a calculated molecular mass of 34.5 kDa. The recombinant protein migrates as an approximately 37 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 50mM Tris, pH 8.0

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

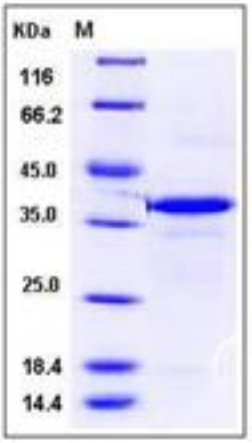
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

The carbonic anhydrases (or carbonate dehydratases) are classified as metalloenzyme for its zinc ion prosthetic group and form a family of enzymes that catalyze the rapid interconversion of carbon dioxide and water to bicarbonate and protons, a reversible reaction that takes part in maintaining acid-base balance in blood and other tissues. The carbonic anhydrasekl (CA) family consists of at least 11 enzymatically active members and a few inactive homologous proteins. Carbonic anhydrase protein (CA) VIII, which is a member of the CA gene family, has been shown to have no catalytic CA activity and its biological function is still unknown. Increased expression of CA-RP VIII was observed in 78% of colorectal carcinomas. It suggested that CA-RP VIII plays a role in the process of invasion in colorectal cancer.

References

1.Lehtonen J, *et al.* (2004) Characterization of CA XIII, a Novel Member of the Carbonic Anhydrase Isozyme Family. The Journal of Biological Chemistry. 279: 2719-27. 2.Lindskog S. (1997) Structure and mechanism of carbonic anhydrase. Pharmacology & Therapeutics. 74(1)： 1-20. 3.*Miyaji E, et al.* (2003) Overexpression of carbonic anhydrase-related protein VIII in human colorectal cancer. The Journal of Pathology. 201(1): 37-45.