

Mouse Carbonic Anhydrase X / Car10 Protein (His Tag)

Catalog Number: 50768-M08H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

2700029L05Rik; BB085816; Ca10; Car10; RP23-448I9.1

Protein Construction:

A DNA sequence encoding the mouse Car10 (P61215) (Met 1-Asn 300) was expressed, fused with a C-terminal polyhistidine tag.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 97 % as determined by SDS-PAGE

Bio Activity:

Measured by its esterase activity. The specific activity is >10 pmoles/min/μg.

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

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

Predicted N terminal: Gln 23

Molecular Mass:

The secreted recombinant mouse Car10 comprises 289 amino acids and has a calculated molecular mass of 33.1 kDa. As a result of glycosylation, the recombinant protein migrates as an approximately 38 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 25mM Tris, 150mM NaCl, pH 7.4

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:

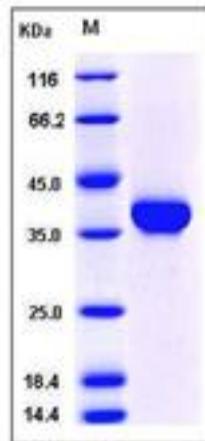
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Carbonic anhydrase X, also called carbonic anhydrase - related protein X (CARPX) and CA10, belongs to the CA family of zinc metalloenzymes which catalyze the reversible hydration of carbon dioxide in various biological processes such as respiration, renal tubular acidification and bone resorption. The secreted protein CARPX without CA activity (hydration of CO₂) is identified as an acatalytic member of the alpha-carbonic anhydrase subgroup. CARP X expression is detected in the adult total brain and almost all parts of the central nervous system, but not in the fetal brain. Accordingly, CARP X is suggested to play a role in the development of central nervous system, especially the brain. The same CARP X protein are encoded by multiple transcript variants of this gene.

References

1. Okamoto, N. et al., 2001, *Biochim. Biophys. Acta* 1518:311-316.
2. Taniuchi, K. et al., *Neuroscience* 112: 93-99.
3. Supuran, C.T. et al., 2003, *Med. Res. Rev.* 23: 146-189.

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