

Recombinant Human CA9 protein, GST-tagged

Cat. No. CA9-10627H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CA9 fused with GST tag was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	111 - 459 aa
Description	Carbonic anhydrases (CAs) are a large family of zinc metalloenzymes that catalyze the reversible hydration of carbon dioxide. They participate in a variety of biological processes, including respiration, calcification, acid-base balance, bone resorption, and the formation of aqueous humor, cerebrospinal fluid, saliva, and gastric acid. They show extensive diversity in tissue distribution and in their subcellular localization. CA IX is a transmembrane protein and is one of only two tumor-associated carbonic anhydrase isoenzymes known. It is expressed in all clear-cell renal cell carcinoma, but is not detected in normal kidney or most other normal tissues. It may be involved in cell proliferation and transformation. This gene was mapped to 17q21.2 by fluorescence in situ hybridization, however, radiation hybrid mapping localized it to 9p13-p12.
Form	The purified protein was Lyophilized from sterile PBS (58mM Na ₂ HPO ₄ , 17mM NaH ₂ PO ₄ , 68mM NaCl, pH8.). Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization.
AA Sequence	EDLPTVEAPGDPQEPQNNHRDKEGDDQSHWRYGGDPPWPRVSPACAGRFQSP

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VDIRPQLAAFCPALRPLELLGFQLPPLPELRLRNNGHSVQLTLPPGLEMALGPGREY
RALQLHLHWGAAGRPGSEHTVEGHRFP AEIHVVHLSTAFARVDEALGRP GGLAVLA
AFLEEGPEENSAYEQLLSRLEEIAEEGSETQVPGLDISALLPSDFSRYFQYEGSLTTP
PCAQGVIVTVFNQTVMLSAKQLHTLSDTLWGP GDSRLQLNFRATQPLNGRVIEASF
PAGVDSSPRAAEPVQLNSCLAAGDILALVFGLLFAVTSVAFLVQMRRQHRRGTKGG
VSYPRAEVAETGA

Purity

70%, by SDS-PAGE with Coomassie Brilliant Blue staining.

Storage

Stability and Storage: Store for up to 12 months at -20 centigrade to -80 centigrade as lyophilized powder.

Storage of Reconstituted Protein:

Short-term storage: Store at 2-8 centigrade for two weeks.

Long-term storage: Aliquot and store at -20 centigrade to -80 centigrade for up to 6 months, buffer containing 50% glycerol is recommended for reconstitution. Avoid repeat freeze-thaw cycles.

Reconstitution

Reconstitute at 0.25 g/μl in 200 μl sterile water for short-term storage.

Reconstitution with 200 μl 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details).

If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used).

Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.

Quality Statement

The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

GENE INFORMATION

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Gene Name	CA9 carbonic anhydrase IX [Homo sapiens]
Official Symbol	CA9
Synonyms	CA9; carbonic anhydrase IX; carbonic anhydrase 9; CAIX; carbonic dehydratase; MN; RCC associated protein G250; pMW1; CA-IX; P54/58N; membrane antigen MN; carbonate dehydratase IX; RCC-associated antigen G250; RCC-associated protein G250; renal cell carcinoma-associated antigen G250;
Gene ID	768
mRNA Refseq	NM_001216
Protein Refseq	NP_001207
MIM	603179
UniProt ID	Q16790

