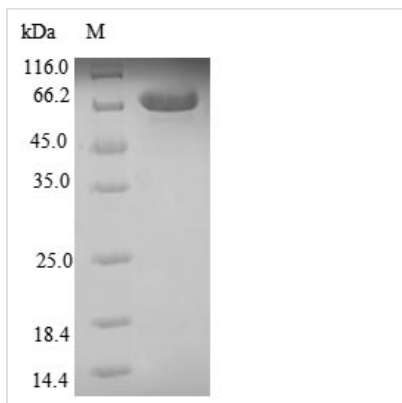


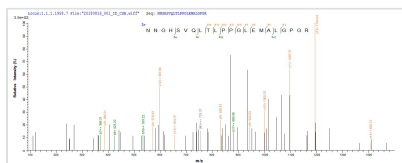


Recombinant Human Carbonic anhydrase 9 (CA9), partial

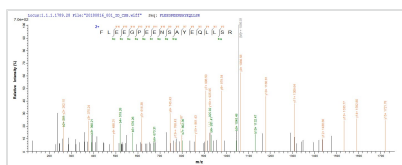
Product Code	CSB-EP614990HUc0
Relevance	Reversible hydration of carbon dioxide. Participates in pH regulation. May be involved in the control of cell proliferation and transformation. Appears to be a novel specific biomarker for a cervical neoplasia.
Abbreviation	Recombinant Human CA9 protein, partial
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	Q16790
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	DLPSEEDSPREEDPPGEEDLPGEEDLPGEEDLPKPKSEEEGSLKLEDLPTV EAPGDPQEPQNNHRDKEGDDQSHWRYGGDPPWPRVSPACAGRFQSPVDI RPQLAAFCPALRPLELLGFQLPPLPELRLRNNGHSVQLTLPPGLEMALGPGRE YRALQLHLHWGAAGRPGSEHTVEGHRFP AEIHVVHLSTAFARVDEALGRPGG LAVLAAFLEEGPEENSAYEQLLSRLEEIAEEGSETQVPGGLDISALLPSDFSRYF QYEGSLTTPPCAQGVIVTVFNQTVMLSAKQLHTLSDTLWGP GDSRLQLNFRA TQPLNGRVIEASFPAGVDSSPR
Research Area	Metabolism
Source	E.coli
Target Names	CA9
Protein Names	Carbonate dehydratase IXCarbonic anhydrase IX ;CA-IX ;CAIXMembrane antigen MNP54/58NRenal cell carcinoma-associated antigen G250 ;R;CC-associated antigen G250pMW1
Expression Region	64-399aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-GST-tagged
Mol. Weight	66.8 kDa
Protein Length	Partial
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP614990HUc0 could indicate that this peptide derived from E.coli-expressed Homo sapiens (Human) CA9.



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Description

The expression region of this recombinant Human CA9 covers amino acids 64-399. The theoretical molecular weight of the CA9 protein is 66.8 kDa. This protein is generated in a e.coli-based system. Fusion of the N-terminal 6xHis-GST tag into the CA9 encoding gene fragment was conducted, allowing for easier detection and purification of the CA9 protein in subsequent stages.

Human carbonic anhydrase 9 (CA9) is a key enzyme involved in pH regulation and hypoxic adaptation. Primarily expressed in hypoxic tumor environments, CA9 facilitates the conversion of carbon dioxide to bicarbonate ions and protons. In cancer research, CA9 serves as a biomarker for hypoxia and tumor progression, offering diagnostic and prognostic insights. Targeting CA9 in anticancer strategies aims to disrupt pH homeostasis in tumor cells. Furthermore, CA9's involvement in acid-base balance makes it a subject of interest in nephrology and cardiovascular research.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.