
Product Data Sheet

Product Name: CA11 Human
 Cat. No.: GP21457
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Carbonic Anhydrase XI; Carbonic Anhydrase-Related Protein 2; Carbonic Anhydrase-Related Protein 11; CARP-2; CA-RP II; CARP XI; CARPX1; CA-XI.		
Amino Acid Sequence	MGSSHHHHHH SGLVPRGSH MHIGPAPDPE DWWSYKDNLQ GNFVPGPPFW GLVNAAWSLC AVGKRQSPVD VELKRVLYDP FLPLRLSTG GEKLRGTLYN TGRHVSFLPA PRPVNVSGG PLYSHRLSE LRLFGARDG AGSEHQINHQ GFSAEVQLIH FNQELYGNFS AASRGPNGLA ILSLFVNVAS TSNPFLSRL NRDTITRISY KNDAYFLQDL SLELLFPESF GFITYQGSLS TPPCSETVTW ILIDRALNIT SLQMHSRLRL SQNPPSQIFQ SLSGNSRPLQ PLAHRALRGN RDPRHPERRC RGPNYRLHVD GVPHGR		
Formulation	The CA11 solution (1mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 0.4M Urea and 10% glycerol.		

Introduction

Carbonic anhydrases (CAs) are a large family of zinc metalloenzymes which catalyze the reversible hydration of carbon dioxide. These metalloenzymes participate in various biological processes, including respiration, calcification, acid-base balance, bone resorption, and the formation of aqueous humor, cerebrospinal fluid, saliva, and gastric acid. The metalloenzymes exhibit extensive diversity in tissue distribution and in their subcellular localization. Carbonic Anhydrase XI (CA11) is probably a secreted protein, nevertheless, drastic changes at active site residues completely conserved in CA isozymes with catalytic activity, make it unlikely that CA11 has carbonic anhydrase activity. CA11 shares properties in common with 2 other acatalytic CA isoforms, CA VIII and CA X. CA11 is amply expressed in the brain, and may have a general role in the central nervous system.

Stability

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

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Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

CA11 Human Recombinant produced in E.coli is a single, non-glycosylated polypeptide chain containing 326 amino acids (24-328) and having a molecular mass of 36.3kDa. CA11 is fused to a 21 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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