

Carbonic Anhydrase 12 Protein, Mouse (277a.a, HEK293, His)

Cat. No.:	HY-P7716
Synonyms:	rMuCarbonic Anhydrase 12, His; Carbonic anhydrase 12; Carbonate dehydratase XII; CA-XII; CA12; Carbonate dehydratase XII;
Species:	Mouse
Source:	HEK293
Accession:	Q8CI85 (A25-S301)
Gene ID:	76459
Molecular Weight:	35-40 kDa

PROPERTIES

AA Sequence	<pre> A P L N G S K W T Y V G P A G E K N W S K K Y P S C G G L L Q S P I D L H S D I L Q Y D A S L A P L Q F Q G Y N V S V E K L L N L T N D G H S V R L N L N S D M Y I Q G L Q P H H Y R A E Q L H L H W G N R N D P H G S E H T V S G K H F A A E L H I V H Y N S D L Y P D F S T A S D K S E G L A V L A V L I E I G S A N P S Y D K I F S H L Q H V K Y K G Q Q V L I P G F N I E E L L P E S P G E Y Y R Y E G S L T T P P C Y P T V L W T V F R N P V Q I S Q E Q L L A L E T A L Y F T H M D D P T P R E M I N N F R Q V Q K F D E R L V Y I S F R Q G L L T D T G L S H H H H H H </pre>
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against 20 mM Tris, 150 mM NaCl, pH 8.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	CAs are widespread in humans with 12 catalytically active isoforms and three acatalytic ones (CA VIII, X, and XI) known to date. Many of the catalytically active CAs possess an excellent activity as catalysts for the reversible CO ₂ hydration to
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bicarbonate and protons, being among the most effective enzymes known in nature. CA IX and XII have been validated as antitumor/antimetastatic drug targets and may be used for imaging hypoxic tumors^[1].

REFERENCES

[1]. Claudiu T Supuran, et al. Carbonic anhydrase inhibitors as emerging agents for the treatment and imaging of hypoxic tumors

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

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