

Active Recombinant Full Length Human CA2 Protein, His tagged

Cat. No. CA2-114H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Carbonic Anhydrase 2 Protein, Human (HEK293, His) is the recombinant human-derived Carbonic Anhydrase 2 protein, expressed by HEK293, with C-His tag. The total length of Carbonic Anhydrase 2 Protein, Human (HEK293, His) is 260 a.a., with molecular weight of approximately 31.72 kDa.
Species	Human
Source	HEK293
ProteinLength	1-260 aa
Description	Carbonic Anhydrase 2 (CA2) catalyzes the reversible hydration of carbon dioxide. Mutations in CA2 are linked to osteopetrosis and renal tubular acidosis. The gene exhibits biased expression in various tissues, notably in the stomach and colon. Two transcript variants, encoding different isoforms, have been identified.
Form	Lyophilized powder
Molecular Mass	31.72 kDa
Bio-activity	Measured by its esterase activity. The specific activity is 1454.8 pmol/min/μg
AA Sequence	MSHHWGYGKHNGPEHWHKDFPIAKGERQSPVDIDHTAKYDPSLKPLSVSYDQAT SLRILNNGHAFNVEFDDSDQKAVLKGGPLDGTYRLIQFHFHWGSLDGQGSEHTVDK

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KKYAAELHLVHWNTKYGDFGKAVQQPDGLAVLGIFLKVGSAKPGLQKVVDVLDISIKT
KGKSADFTNFDPRGLLPESLDYWTYPGSLTTPPLLECVTWIVLKEPISVSSEQVLKFR
KLNFNGEGEPEELMVDNWRPAQPLKNRQIKASFK

Endotoxin <1 EU/μg determined by LAL method.

Purity ≥98.0%

Storage Stored at -20 centigrade for 2 years from date of receipt. After reconstitution, it is stable at 4 centigrade for 1 week or -20 centigrade for longer (with carrier protein). It is recommended to freeze aliquots at -20 or -80 centigrade for extended storage.

Storage Buffer Lyophilized a 0.22 μm filtered solution of 20 mM Tris, 150 mM NaCl, pH 8.0 or 20 mM Tris-HCl, 0.5 M NaCl, 6% Trehalose, pH 8.0.

Reconstitution It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH₂O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).

Shipping Room temperature in continental US; may vary elsewhere.

GENE INFORMATION

Gene Name CA2 carbonic anhydrase II [Homo sapiens (human)]

Official Symbol CA2

Synonyms CA2; carbonic anhydrase II; carbonic anhydrase 2; CA II; CAII; Car2; CAC; carbonic anhydrase B; carbonic anhydrase C; carbonic dehydratase; carbonate dehydratase II; CA-II;

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Gene ID	760
mRNA Refseq	NM_000067
Protein Refseq	NP_000058
MIM	611492
UniProt ID	P00918

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