

Recombinant Human CA12

Cat. No. CA12-26248TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant fragment corresponding to amino acids 25-124 of Human CA12 with N terminal proprietary tag; predicted MWt 36.63 kDa inclusive of tag. O43570,
Species	Human
Source	Wheat Germ
ProteinLength	100 amino acids
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. This gene product is a type I membrane protein that is highly expressed in normal tissues, such as kidney, colon and pancreas, and has been found to be overexpressed in 10% of clear cell renal carcinomas. Two transcript variants encoding different isoforms have been identified for this gene.
Molecular Weight	36.630kDa inclusive of tags
Tissue specificity	Highly expressed in colon, kidney, prostate, intestine and activated lymphocytes. Expressed at much higher levels in the renal cell cancers than in surrounding normal kidney tissue. Moderately expressed in pancreas, ovary and testis.
Form	Liquid

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Purity	Proprietary Purification
Storage buffer	pH: 8.00 Constituents: 0.3% Glutathione, 0.79% Tris HCl
Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequences of amino acids	APVNGSKWTFYFGPDGENSWSKYPSCGGLLQSPIDLHSDILQYDASLTPLEFQGYN LSANKQFLLTNNGHSVKLNLPSDMHIQGLQSRYSATQLHLHWGN
Sequence Similarities	Belongs to the alpha-carbonic anhydrase family.

GENE INFORMATION

Gene Name	CA12 carbonic anhydrase XII [Homo sapiens]
Official Symbol	CA12
Synonyms	CA12; carbonic anhydrase XII; carbonic anhydrase 12; HsT18816;
Gene ID	771
mRNA Refseq	NM_001218
Protein Refseq	NP_001209
MIM	603263
Uniprot ID	O43570
Chromosome	15q22

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Location

Pathway

Nitrogen metabolism, organism-specific biosystem; Nitrogen metabolism, conserved biosystem;

Function

carbonate dehydratase activity; lyase activity; metal ion binding; zinc ion binding;

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