

**CA12, 25-301aa, Human, His tag, Insect cell**

**Cat.NO.: TP01389**

3th Edition

**Synonyms:**Carbonic anhydrase 12 isoform 1, CAXII, HsT18816

**Description:**CA12, also known as Carbonic anhydrase 12, is an enzyme that in humans is encoded by the CA12 gene. 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. Recombinant human CA12, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

**Form:**Liquid. In phosphate buffered saline (pH7.4) containing 10% glycerol.

**Molecular Weight:**31.94kDa (283aa) (28-40kDa in SDS-PAGE under reducing conditions.)

**Sequences:**

APVNGSKWTFYFGPDGENSWSKKYPSCGGLLQSPIDLHSDILQYDASLTPLEFQGYNLSANKQFLLTNNGHSVKLNLP  
PSDMHIQGLQSRYSATQLHLHWGNPNDPHGSEHTVSGQHFAAELHIVHYNLDLYPDASTASNKSEGLAVLAVLIEM  
GSFNPSYDKIFSHLQHVKYKGQEA FVPGFNIEELLPERTAEYYRYRGSLLTPPCNPTVLWTVFRNPVQISQEQLLAL  
ETALYCTHMDDPSPREMINNFRQVQKFDERLVYTSFSQVQVCTAAGLSHHHHHH

**Purity:**> 95% by HPLC

**Concentration:**0.5mg/ml (determined by absorbance at 280nm)

**Endotoxin Level:**<1.0 EU per 1 ug of protein (determined by LAL method)

**Storage:**Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.