

AR51944PU-S

Human Carbonic anhydrase 12 (25-301, His-tag) - Purified

Alternate names:

CA-XII, CA12, Carbonate dehydratase XII, Carbonic anhydrase XII, HOM-RCC-3.1.3 tumor antigen

Quantity:

50 µg

Concentration:

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

Background:

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.

Uniprot ID:

[O43570](#)

NCBI:

[NP_001209](#)

GeneID:

[771](#)

Species:

Human

Format:

State: Liquid purified protein

Purity: >90% by SDS - PAGE

Buffer System: Phosphate buffered saline (pH7.4) containing 10% glycerol.

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

Description:

Recombinant human CA12, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

AA Sequence:

APVNGSKWTY FGPDGNSWS KKYPSCGGLL QSPIDLHSDI LQYDASLTPL EFQGYNLSAN
KQFLLTNNGH SVKLNLPDSDM HIQGLQSRYS ATQLHLHWGN PNDPHGSEHT VSGQHFAAEL
HIVHYNSDLY PDASTASNKS EGLAVLAVLI EMGSFNPSYD KIFSHLQHVK YKGQEAFFVPG
FNIEELLPER TAEYYRYRGS LTTTPPCNPTV LWTVFRNPVQ ISQEQLLALE TALYCTHMDD
PSPREMINNF RQVQKFDERL VYTSFSQVQV CTAAGLSHHH HHH

Molecular weight: 31.94 kDa (283aa)

Storage:

Store undiluted at 2-8°C for one week or (in aliquots) at -20°C to -80°C for longer.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.

General Readings:

Tureci O. et al. (1998) Proc Natl Acad Sci U S A. 95(13):7608-13. Kyllonen MS. et al. (2003) J Histochem Cytochem. 51(9):1217-24.

Pictures:

