



Recombinant Protein Technical Manual

**Recombinant Mouse Carbonic Anhydrase XII/CA12
Protein (His Tag)**
RPES4970

Product Data:

Product SKU: RPES4970

Size: 10µg

Species: Mouse

Expression host: Human Cells

Uniprot: Q8CI85

Protein Information:

Molecular Mass: 32.4 kDa

AP Molecular Mass: 35-40 kDa

Tag: C-6His

Bio-activity:

Purity: > 95 % as determined by SDS-PAGE

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from a 0.2 µm filtered solution of 20mM Tris,150mM NaCl,pH8.0.

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Carbonic anhydrase 12; Carbonate dehydratase XII; Carbonic anhydrase XII; CA-XII; CA12; Carbonate dehydratase XII; CAXII;Car12

Immunogen Information:

Sequence: Ala25-Ser301

Background:

Carbonic Anhydrase (CA) XII, also known as Car12 and CA12, is an extracellular enzyme involved in the regulation of the microenvironment acidity and tumor malignant phenotype, was originally identified as a protein overexpressed in some types of cancers. It has showed that CA XII is induced by hypoxia and oestrogen and expressed at high levels on various types of cancer. The enzyme is directly involved in tumour progression, and its inhibition has an anti-tumour effect. Apart from its role in carcinogenesis, the enzyme contributes to various other diseases like glaucoma and arteriosclerotic plaques, among others. CA XII is therefore regarded as promising target for specific therapies, and may be used as a novel prognostic marker in combination with histologic grade of the tumors.