

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

Catalog No. PKSM040971

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

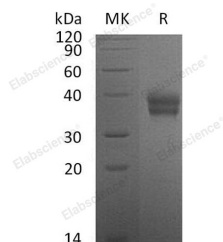
### Description

<b>Synonyms</b>	Carbonic anhydrase 12;Carbonate dehydratase XII;Carbonic anhydrase XII;CA-XII;CA12;Carbonate dehydratase XII;CAXII;Car12
<b>Species</b>	Mouse
<b>Expression Host</b>	HEK293 Cells
<b>Sequence</b>	Ala25-Ser301
<b>Accession</b>	Q8CI85
<b>Calculated Molecular Weight</b>	32.4 kDa
<b>Observed molecular weight</b>	35-40 kDa
<b>Tag</b>	C-His
<b>Bioactivity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, 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.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of 20mM Tris-HCl, 150mM NaCl, pH 8.0. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 95 % as determined by reducing SDS-PAGE.

### Background

#### For Research Use Only

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.