



## Recombinant Protein Technical Manual

**Recombinant Mouse Carbonic Anhydrase 14/Car14  
Protein (His Tag)**  
RPES4949

### Product Data:

**Product SKU:** RPES4949

**Size:** 10µg

**Species:** Mouse

**Expression host:** E. coli

**Uniprot:** Q9WVT6

### Protein Information:

**Molecular Mass:** 32.3 kDa

**AP Molecular Mass:** 40 kDa

**Tag:** N-6His

**Bio-activity:**

**Purity:** > 95 % as determined by SDS-PAGE

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

**Storage:** Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.

**Shipping:** This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < -20°C.

**Formulation:** Supplied as 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 14; Carbonate Dehydratase XIV; Carbonic Anhydrase XIV; CA-XIV; CA14; Ca14; Car14; Catm

## Immunogen Information:

**Sequence:** Ala16-Met290

## Background:

Mouse Ca14, also known as Carbonic anhydrase 14, is a member of a large family of zinc metalloenzymes. It could catalyze reversible hydration of carbon dioxide. The reaction is fundamental to many processes such as respiration, renal tubular acidification and bone resorption. Fifteen CA isoforms have been reported so far. They have different patterns of tissue-specific expression and physiologic roles. Some CAs may serve as markers for tumors and hypoxia. CA XIV is a polypeptide consisting of an extracellular N-terminal catalytic domain, a membrane-spanning segment and a short intracellular C-terminal segment with several potential phosphorylation sites. A subset of CAs lack CA activity due to point mutations but retain esterase function. CA14 is widely expressed in the central nervous system.