

## 32-7863: Recombinant Mouse Carbonic Anhydrase 4/CAIV/CA4 (C-6His)

**Gene :** Ca4  
**Gene ID :** 12351  
**Uniprot ID :** Q64444

### Description

Source: Human Cells.  
MW :30.5kD.

Recombinant Mouse Carbonic anhydrase 4 is produced by our expression system and the target gene encoding Glu18-Ser277 is expressed. Carbonic anhydrase 4(CA4) is an enzyme that belongs to the alpha-carbonic anhydrase family. CA4 consists of a signal peptide (residues1-17), an ectodomain (residues18-277) and a propeptide (residues278-305), which is removed in the mature form. It is predominantly expressed in the embryo. CA4 can catalyze the reversible reaction of  $\text{CO}_2 + \text{H}_2\text{O} = \text{HCO}_3^- + \text{H}^+$ , and stimulates the sodium/bicarbonate transporter activity of SLC4A4. Studies have shown that this protein has a role in inherited renal abnormalities of bicarbonate transport. Alpha-carbonic anhydrase family members participate in a variety of biological processes, including respiration, calcification, acid-base balance, bone resorption, and the formation of aqueous humor. They show extensive diversity in tissue attribution and in their sub cellular localization.

### Product Info

**Amount :** 10 µg / 50 µg  
**Content :** Supplied as a 0.2 µm filtered solution of 20mM Tris,150mM NaCl,pH8.0.  
**Storage condition :** Store at -20°C, stable for 6 months after receipt. Please minimize freeze-thaw cycles.  
**Amino Acid :** ED SGWCYEIQTKDPRSSCLGPEKWP GACKENQQSPINIVTARTKVNPR LTPFILVG YDQKQWP IKNQHTVE  
MTLGGGACIIGGDL PARYEAVQLHLHWSNGNDNGSEHSIDGRHFAMEMHIVHKKLTSSKEDSKDKFAVLAFMI  
EVGDKVNKGFQPLVEALPSISKPHSTSTVRESSLQDMLPPSTKMYTYFRYNGSLTTPNCDETVIWTVYKQPIKIH  
KNQFLEFSKNLYDEDQKLNMKDNVRPLQLGKRQVFKS

### Application Note

**Endotoxin :** Less than 0.1 ng/µg (1 IEU/µg) as determined by LAL test.