Data Sheet (Cat.No.TMPY-01351)

TargetMol

Carbonic Anhydrase 10 Protein, Human, Recombinant (His)

General Information

Synonyms: carbonic anhydrase X;CA-RPX;CARPX;CA10;HUCEP-15

Protein Construction: Gln22-Asn300

Species: Human

Expression Host: HEK293 Cells

Accession: Q9NS85

Molecular Weight: 32.82 kDa (Predicted); 34 kDa (Reducing conditions)

QC Testing

Biological Activity: Activity has not been tested. It is theoretically active, but we cannot guarantee it.

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

Endotoxin: < 1.0 EU/μg of the protein as determined by the LAL method.

Formulation: Lyophilized from a 0.2 μm filtered solution of 20 mM Tris-HCl, 150 mM NaCl, pH 8.0.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Carbonic Anhydrase X (CA10) belongs to CA family of zinc metalloenzymes, which catalyze the reversible hydration of carbon dioxide in various biological processes such as respiration, renal tubular acidification and bone resorption. While CA10 is a secreted protein without Carbonic Anhydrase activity (i.e., the reversible hydration of CO2) due to point mutations in the zinc binding site, it has esterase activity. The human and mouse CA10 are expressed in the brain, indicating that they may play a role in brain development.

Reference

Okamoto, N. et al., 2001, Biochim. Biophys. Acta 1518:311-316.
Taniuchi, K. et al., Neuroscience 112: 93-99.
Supuran, C.T. et al., 2003, Med. Res. Rev. 23: 146-189.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481