



Recombinant Protein Technical Manual

**Recombinant Human Carbonic Anhydrase 3/CA3
Protein (His Tag)**
RPES4229

Product Data:

Product SKU: RPES4229

Size: 10µg

Species: Human

Expression host: E. coli

Uniprot: P07451

Protein Information:

Molecular Mass: 30.6 kDa

AP Molecular Mass: 30 kDa

Tag: C-6His

Bio-activity:

Purity: > 95 % as determined by reducing 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, pH 7.5.

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

Application:

Synonyms: Carbonic Anhydrase 3; Carbonate Dehydratase III; Carbonic Anhydrase III; CA-III; CA3; Car3

Immunogen Information:

Sequence: Ala2-Lys260

Background:

Carbonic Anhydrase 3 (CA3) belongs to the Alpha-Carbonic Anhydrase family that encodes carbonic anhydrase isozymes. These carbonic anhydrases are a class of metalloenzymes that catalyze the reversible hydration of carbon dioxide and are differentially expressed in a number of cell types. The expression of the CA3 gene is strictly tissue specific and it is present at high levels in skeletal muscle with much lower levels found in cardiac and smooth muscle. CA3 is activated by proton donors such as imidazole and the dipeptide histidylhistidine. CA3 is inhibited by coumarins and sulfonamide derivatives such as acetazolamide.