PE-Labeled Human Carbonic Anhydrase IX / CA9 (38-414) Protein, His Tag (Site-specific conjugation)

Catalog # CA9-HP2H6

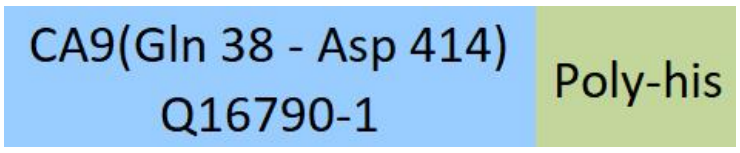
Synonym

CAIX,CA9,CA-IX,G250,MN,P54,58N,pMW1

Source

PE-Labeled Human Carbonic Anhydrase IX (38-414), His Tag (CA9-HP2H6) is produced via site-specific conjugation of PE to Human Carbonic Anhydrase IX (38-414), His Tag under optimal conditions with a proprietary technology. Human Carbonic Anhydrase IX (38-414), His Tag is expressed from human 293 cells (HEK293). It contains AA Gln 38 - Asp 414 (Accession # Q16790-1). Predicted N-terminus: Gln 38

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 44.5 kDa.

Application

Please note that this product is NOT compatible to streptavidin detection system.

Conjugate

PE

Excitation Wavelength: 488 nm / 561 nm

Emission Wavelength: 575 nm

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, 0.5% BSA, pH7.4. Normally trehalose is added as protectant before lyophilization.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

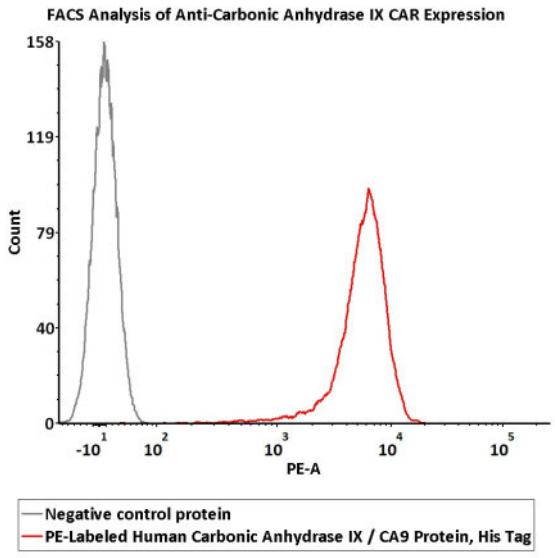
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please protect from light and avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

Bioactivity-FACS



5e5 of anti-Carbonic Anhydrase IX CAR-293 cells were stained with 100 μL of 1:50 dilution (2 μL stock solution in 100 μL FACS buffer) of PE-Labeled Human Carbonic Anhydrase IX (38-414), His Tag (Cat. No. CA9-HP2H6) and negative control protein respectively. PE signal was used to evaluate the binding activity (QC tested).

PE-Labeled Human Carbonic Anhydrase IX / CA9 (38-414) Protein, His Tag (Site-specific conjugation)

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Background

Carbonic anhydrases (CAs) are a large family of zinc metalloenzymes. CAs form a family of enzymes that catalyze the rapid interconversion of carbon dioxide and water to bicarbonate and protons (or vice versa), a reversible reaction that occurs rather slowly in the absence of a catalyst. One of the functions of the enzyme in animals is to interconvert carbon dioxide and bicarbonate to maintain acid-base balance in blood and other tissues, and to help transport carbon dioxide out of tissues. The active site of most carbonic anhydrases contains a zinc ion. There are at least five distinct CA families (α, β, γ, δ and ε). Carbonic anhydrase 9 (CA9 / CAIX) is also known as Membrane antigen MN (MN), Renal cell carcinoma-associated antigen G250, which belongs to the alpha-carbonic anhydrase family. CA9 / CAIX with an optimal activity at pH 6.49. Reversible hydration of carbon dioxide. CA IX participates in pH regulation. CA9 may be involved in the control of cell proliferation and transformation. CA-IX appears to be a novel specific biomarker for a cervical neoplasia.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.