

Carbonic Anhydrase XIII (CA13) Active Protein | CA13 active protein

Active Carbonic Anhydrase XIII (CA13)

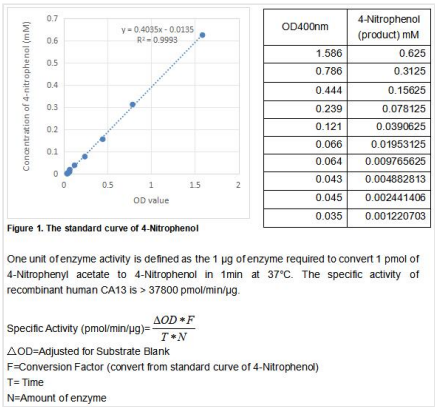
CATALOG # AAA161906	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Carbonic Anhydrase XIII (CA13); Active Carbonic Anhydrase XIII (CA13); Carbonic Anhydrase XIII; CA-XIII; CAXIII; Carbonate dehydratase XIII4; CA13 active protein

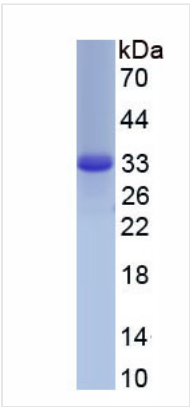
PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 95% by SDS-PAGE
Form/Format	Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence	Met1~His26 2
Applicable Applications for CA13 active protein	Activity Assay, Cell Culture
Species	Human
Expression System	Prokaryotic expression
Tag	N-terminal His Tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	6.5
Research Area	Enzyme & Kinase
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months



SDS-PAGE

Figure. SDS-PAGE



Bioactivity

Carbonic Anhydrase (CA) catalyzes the reversible reaction of CO₂ + H₂O = HCO₃⁻ + H⁺, which is fundamental to many processes such as respiration, renal tubular acidification and bone resorption. CA13 is a cytosolic enzyme with a unique and widespread distribution pattern as compared to the other cytosolic CAs, indicating that it may play important physiological roles in several organs. The activity of recombinant human CA13 was measured by its ability to hydrolyze 4-Nitrophenyl acetate (4-NPA) to 4-Nitrophenol. The reaction was performed in 12.5 mM Tris, 75 mM NaCl, pH 7.5 (assay buffer), initiated by addition 50 µL of various concentrations of CA13 (diluted by assay buffer) to 50 µL of 2 mM substrate 4-NPA (100 mM stock in Acetone, diluted by assay buffer). Incubated at 37 degree C for 5min, then read at a wavelength of 400 nm.

ADDITIONAL INFORMATION

Product Categories/Family for CA13 active protein	Active proteins
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NCBI AND UNIPROT INFORMATION

NCBI GI #	38348436
NCBI GeneID	377677
NCBI Accession #	NP_940986.1
NCBI GenBank Nucleotide #	NM_198584.2
UniProt Accession #	Q8N1Q1
Molecular Weight	29,443 Da
NCBI Official Full Name	carbonic anhydrase 13
NCBI Official Synonym Full Names	carbonic anhydrase XIII
NCBI Official Symbol	CA13
NCBI Official Synonym Symbols	CAXIII
NCBI Protein Information	carbonic anhydrase 13; CA-XIII; carbonate dehydratase XIII
UniProt Protein Name	Carbonic anhydrase 13
UniProt Gene Name	CA13
UniProt Synonym Gene Names	CA-XIII
UniProt Entry Name	CAH13_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/e-coli-active-protein/carbonic-anhydrase-xiii-ca13/161906>