

## Native Human CA6

**Cat. No.** CA6-804H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| <b>Product Overview</b> | Native Human CA6 was isolated from human milk.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Source</b>           | Human milk                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Description</b>      | <p>Carbonic anhydrases (CAs) are enzymes which catalyze the reversible hydration of carbon dioxide according to the following reaction: <math>\text{CO}_2 + \text{H}_2\text{O} \leftrightarrow \text{HCO}_3^- + \text{H}^+</math>. The main function of this protein family is to regulate the acid-base balance, which is of a considerable biological importance. In addition, they participate in several other physiological functions including <math>\text{CO}_2</math> and <math>\text{HCO}_3^-</math> transport, bone resorption, production of biological fluids, ureagenesis, gluconeogenesis and lipogenesis. Carbonic anhydrases are metalloenzymes containing a zinc-atom in their active site. The expanding CA gene family includes at least 13 enzymatically active members with different structural and catalytic properties.</p> <p>Purified by CA inhibitor affinity chromatography.</p> |
| <b>Form</b>             | 0.1 M Tris- $\text{SO}_4$ pH 7.0, 0.4 M $\text{NaN}_3$ , 1 mM Benzamidine and 20 % glycerol, pH 7.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Molecular Mass</b>   | 35 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

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|                    |                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity</b>      | > 95 % (SDS-PAGE under reducing conditions)                                                                                                                                                                                                                                                                                                                      |
| <b>Storage</b>     | Store at -80 centigrade, avoid freeze/thaw cycles.                                                                                                                                                                                                                                                                                                               |
| <b>AA Sequence</b> | <p>MRALVLLLSLFLGGQAQHVSDWTYSEGALDEAHWPQHYPACGGQRQSPINLQRT</p> <p>KVRYNPSLKGLNMTGYETQAGEFPMVNNGHTVQISLPSTMRMTVADGTVYIAQQM</p> <p>HFHWGGASSEISGSEHTVDGIRHVEIHIVHNSKYKSYDIAQDAPDGLAVLAAFVEV</p> <p>NYPENTYYSNFISHLANIKYPGQRTTLTGLDVQDMLPRNLQHYYTYHGSLTTPPCTE</p> <p>NVHWFVLADDFVKLSRTQVWKLENSLLDHRNKTIHNDYRRTQPLNHRVVESNFPNQE</p> <p>YTLGSEFQFYLHKIEEILDYLRRALN</p> |

## GENE INFORMATION

|                        |                                            |
|------------------------|--------------------------------------------|
| <b>Gene Name</b>       | CA6 carbonic anhydrase VI [ Homo sapiens ] |
| <b>Official Symbol</b> | CA6                                        |
| <b>Synonyms</b>        | CA-VI; GUSTIN                              |
| <b>Gene ID</b>         | 765                                        |
| <b>mRNA Refseq</b>     | NM_001215.3                                |
| <b>Protein Refseq</b>  | NP_001206.2                                |
| <b>MIM</b>             | 114780                                     |
| <b>UniProt ID</b>      | P23280                                     |

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