

# Recombinant Full Length Human CA3 Protein, C-Flag-tagged

**Cat. No.** CA3-926HFL    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Full Length Human CA3 Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Source</b>           | Mammalian Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Description</b>      | Carbonic anhydrase III (CAIII) is a member of a multigene family (at least six separate genes are known) 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 present at high levels in skeletal muscle and much lower levels in cardiac and smooth muscle. A proportion of carriers of Duchenne muscle dystrophy have a higher CA3 level than normal. The gene spans 10.3 kb and contains seven exons and six introns. |
| <b>Form</b>             | 25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Molecular Mass</b>   | 29.4 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>AA Sequence</b>      | MAKEWGYASHNGPDHWHELFPNAKGENQSPIELHTKDIRHDPSLQPWSVSYDGGG<br>AKTILNNGKTCRVVF DDTYDRSMLRGGPLPGPYRLRQFHLHWGSSDDHGSEHTVD<br>GVKYAAELHLVHWNPKYNTFKEALKQRDGI AVIGIFLKIGHENGFEQIFLDALDKIKTK<br>GKEAPFTKFDPSCLFACRDYWTYQGSFTTPPCEECIVWLL<br>LKEPMTVSSDQMAKLRSLLSSAENEPPVPLVSNWRPPQPINNRRVVRASFKTRTRPL                                                                                                                                                                                                                                                                                                                                                             |

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|                         |                                                                                                                                               |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
|                         | EQKLISEEDLAANDILDYKDDDDKV                                                                                                                     |
| <b>Purity</b>           | > 80% as determined by SDS-PAGE and Coomassie blue staining.                                                                                  |
| <b>Stability</b>        | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles. |
| <b>Storage</b>          | Store at -80 centigrade.                                                                                                                      |
| <b>Concentration</b>    | >50 ug/mL as determined by microplate BCA method.                                                                                             |
| <b>Preparation</b>      | Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.                              |
| <b>Protein Families</b> | Druggable Genome                                                                                                                              |
| <b>Protein Pathways</b> | Nitrogen metabolism                                                                                                                           |
| <b>Full Length</b>      | Full L.                                                                                                                                       |

## GENE INFORMATION

|                        |                                                   |
|------------------------|---------------------------------------------------|
| <b>Gene Name</b>       | CA3 carbonic anhydrase 3 [ Homo sapiens (human) ] |
| <b>Official Symbol</b> | CA3                                               |
| <b>Synonyms</b>        | Car3; CAIII                                       |
| <b>Gene ID</b>         | 761                                               |
| <b>mRNA Refseq</b>     | NM_005181.4                                       |

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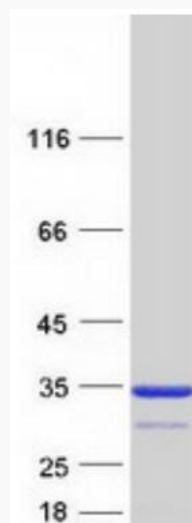
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**Protein Refseq** [NP\\_005172.1](#)

**MIM** [114750](#)

**UniProt ID** [P07451](#)



Coomassie blue staining of purified CA3 protein.

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