

## Datasheet

### CA3 monoclonal antibody (M02), clone 4A12-1A3

**Catalog Number:** H00000761-M02

**Regulatory Status:** For research use only (RUO)

**Product Description:** Mouse monoclonal antibody raised against a full-length recombinant CA3.

**Clone Name:** 4A12-1A3

**Immunogen:** CA3 (AAH04897, 1 a.a. ~ 260 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.

**Sequence:**

MAKEWGYASHNGPDHWHELFPNAKGENQSPIELHTK  
DIRHDPQLPWSVSYDGGSAKTILNNGKTCRVVFD  
YDRSMLRGGPLPGPYRLRQFHLHWGSSDDHGSEHTV  
DGVKYAAELHLVHWNPKYNTFKEALKQRDGIIVIGFL  
KIGHENGEFQIFLDALDKIKTKGKEAPFTKFDPSCLFPA  
CRDYWTYQGSFTTPPCEECIVWLLLKEPMTVSSDQM  
AKLRLLPSAENEPVPLVSNWRPPQPINNRVVRASF  
K

**Host:** Mouse

**Reactivity:** Human

**Applications:** ELISA, IHC-P, S-ELISA, WB-Ce, WB-Re  
(See our web site product page for detailed applications information)

**Protocols:** See our web site at  
<http://www.abnova.com/support/protocols.asp> or product page for detailed protocols

**Isotype:** IgG1 kappa

**Storage Buffer:** In 1x PBS, pH 7.4

**Storage Instruction:** Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

**Entrez GeneID:** 761

**Gene Symbol:** CA3

**Gene Alias:** CAIII, Car3

**Gene Summary:** 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. [provided by RefSeq]

**References:**

1. Expression of CAIII and Hsp70 Is Increased the Mucous Membrane of the Posterior Commissure in Laryngopharyngeal Reflux Disease. Min HJ, Hong SC, Yang HS, Mun SK, Lee SY. Yonsei Med J. 2016 Jan 28;57(2):469-74.
2. The human cardiac and skeletal muscle proteomes defined by transcriptomics and antibody-based profiling. Lindskog C, Linne J, Fagerberg L, Hallstrom BM, Sundberg CJ, Lindholm M, Huss M, Kampf C, Choi H, Liem DA, Ping P, Varemo L, Mardinoglu A, Nielsen J, Larsson E, Ponten F, Uhlen M. BMC Genomics. 2015 Jun 25;16(1):475.
3. Proteomic profiling of antisense-induced exon skipping reveals reversal of pathobiochemical abnormalities in dystrophic mdx diaphragm. Doran P, Wilton SD, Fletcher S, Ohlendieck K. Proteomics. 2009 Feb;9(3):671-85.