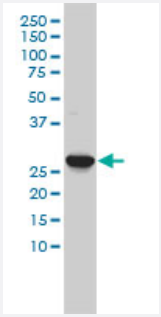
CA3 monoclonal antibody (M02), clone 4A12-1A3

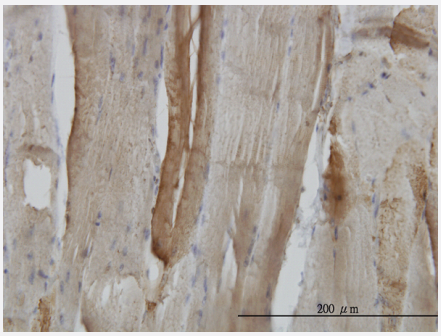
Catalog # H00000761-M02 Size 100 ug

Applications



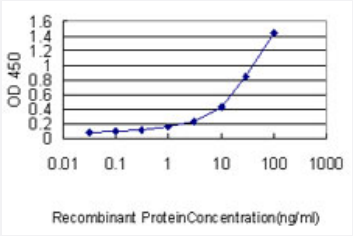
Western Blot (Cell lysate)

CA3 monoclonal antibody (M02), clone 4A12-1A3 Western Blot analysis of CA3 expression in K-562 (Cat # L009V1).



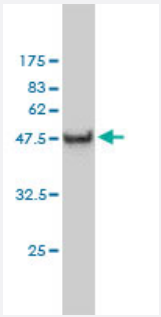
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunoperoxidase of monoclonal antibody to CA3 on formalin-fixed paraffin-embedded human skeletal muscle. [antibody concentration 3 ug/ml]



Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged CA3 is approximately 1ng/ml as a capture antibody.



Western Blot detection against Immunogen (54.34 KDa) .

Specification

Product Description	Mouse monoclonal antibody raised against a full-length recombinant CA3.
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	MAKEWGYASHNGPDHWHELFPNAKGENQSPIELHTKDIRHDPSLQPWSVSYDGGSAKTILNNGK TCRVVFDDTYDRSMLRGGPLPGPYRLRQFHLHWGSSDDHGSEHTVDGVKYAAELHLVHWNPKY NTFKEALKQRDGIAVIGIFLKIGHENGEFQIFLDALDKIKTKGKEAPFTKFDPSCLFPACRDYWTYQG SFTTPPCEECIVWLLLKEPMTVSSDQMAKLRSLLPSAENEPPVPLVSNWRPPQPINNRVVRASF K
Host	Mouse
Reactivity	Human
Isotype	IgG1 kappa
Quality Control Testing	Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (54.34 KDa) .
Storage Buffer	In 1x PBS, pH 7.4
Storage Instruction	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Applications

- Western Blot (Cell lysate)

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  Protocol Download

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- ELISA

Gene Info — CA3

Entrez GeneID	761
GeneBank Accession#	BC004897
Protein Accession#	AAH04897
Gene Name	CA3
Gene Alias	CAIII, Car3
Gene Description	carbonic anhydrase III, muscle specific
Omim ID	114750
Gene Ontology	Hyperlink
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
Other Designations	carbonic anhydrase III

Publication Reference

- Rest interval duration does not influence adaptations in acid/base transport proteins following 10 weeks of sprint-interval training in active women.

  McGinley C, Bishop DJ.

  American Journal of Physiology. Regulatory, Integrative and Comparative Physiology 2017 May; 312(5):R702.

  Application: WB, Human, Human muscle biopsies

- Influence of training intensity on adaptations in acid/base transport proteins, muscle buffer capacity, and repeated-sprint ability in active men.

  McGinley C, Bishop DJ.

  Journal of Applied Physiology 2016 Dec; 121(6):1290.

  Application: WB, Human, Human muscle

- 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 Medical Journal 2016 Mar; 57(2):469.

  Application: IHC, Human, Posterior Commissure Epithelium

- 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; 16:475.

  Application: IHC, Human, Skeletal muscle

- 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.

  Application: Func, Mouse, Mouse skeletal muscle

Pathway

- Nitrogen metabolism