

For Research Use Only

CA3 Polyclonal antibody

Catalog Number: 15197-1-AP

Featured Product

4 Publications



Basic Information

Catalog Number: 15197-1-AP	GenBank Accession Number: BC004897	Purification Method: Antigen affinity purification
Size: 150ul , Concentration: 600 µg/ml by Nanodrop and 300 µg/ml by Bradford method using BSA as the standard;	GeneID (NCBI): 761	Recommended Dilutions: WB 1:2000-1:16000 IHC 1:200-1:1000 IF 1:50-1:500
Source: Rabbit	Full Name: carbonic anhydrase III, muscle specific	
Isotype: IgG	Calculated MW: 29 kDa	
Immunogen Catalog Number: AG7344	Observed MW: 30 kDa	

Applications

Tested Applications:

IF, IHC, WB, ELISA

Cited Applications:

IHC, WB

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse, rat

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB: HEK-293 cells, mouse skeletal muscle tissue, rat skeletal muscle tissue, HeLa cells

IHC: mouse skeletal muscle tissue, rat skeletal muscle tissue

IF: mouse skeletal muscle tissue,

Background Information

Carbonic anhydrase III (CA3), which belongs to the alpha-carbonic anhydrase family, is a cytoplasmic enzyme that exhibits a relatively low carbon dioxide hydratase activity. It is expressed at a very high level in skeletal muscle, where physical exercise has been shown to increase free radical production. In addition to its carbon dioxide hydratase activity, CA3 has been demonstrated to have a carboxyl esterase activity and phosphatase activity, which suggests that it is a tyrosine phosphatase (PMID: 10064618). CA3 was found to be localized in Type-I muscle fibers and could be used as a marker for abnormal Type-I muscle fibers in several neuromuscular diseases (PMID: 6221502).

Notable Publications

Author	Pubmed ID	Journal	Application
Claes-Göran Reibring	24789143	PLoS One	IHC
Hiroyuki Yamamoto	35108454	FEBS Open Bio	WB
Chien-Ning Hsu	29800813	J Nutr Biochem	WB, IHC

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

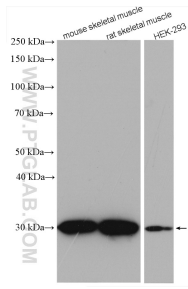
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

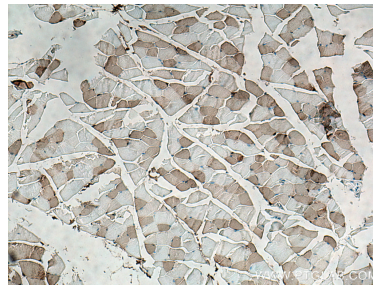
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

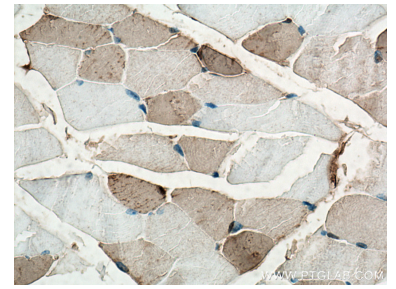
Selected Validation Data



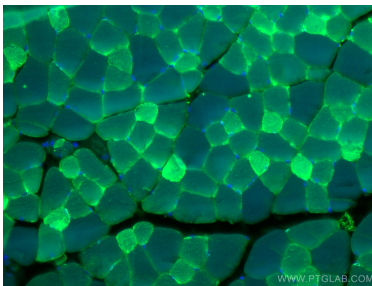
Various lysates were subjected to SDS PAGE followed by western blot with 15197-1-AP (CA3 antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded mouse skeletal muscle tissue slide using 15197-1-AP (CA3 antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse skeletal muscle tissue slide using 15197-1-AP (CA3 antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed mouse skeletal muscle tissue using 15197-1-AP (CA3 antibody), at dilution of 1:100 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).