

For Research Use Only

CA3 Polyclonal antibody

Catalog Number: 15197-1-AP

Featured Product

8 Publications



Basic Information

Catalog Number:

15197-1-AP

Size:

600 µg/ml

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG7344

GenBank Accession Number:

BC004897

GeneID (NCBI):

761

UNIPROT ID:

P07451

Full Name:

carbonic anhydrase III, muscle specific

Calculated MW:

29 kDa

Observed MW:

30 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB 1:2000-1:16000

IHC 1:200-1:1000

IF 1:50-1:500

Applications

Tested Applications:

IF-P, IHC, WB, ELISA

Cited Applications:

IF, IHC, WB

Species Specificity:

human, mouse, rat

Cited Species:

human, rat, mouse

Positive Controls:

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

IHC: mouse skeletal muscle tissue,

IF: mouse skeletal muscle tissue, human kidney tissue

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

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
Dennis R. Clayton	35834272	Am J Physiol Renal Physiol	IF
Hiroyuki Yamamoto	35108454	FEBS Open Bio	WB

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:

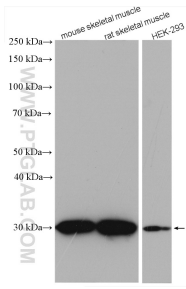
T: 4006900926

E: Proteintech-CN@ptglab.com

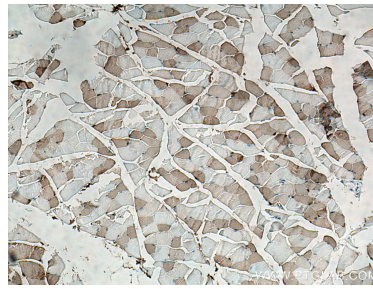
W: ptgcn.com

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

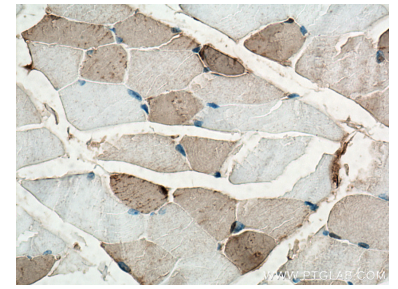
Selected Validation Data



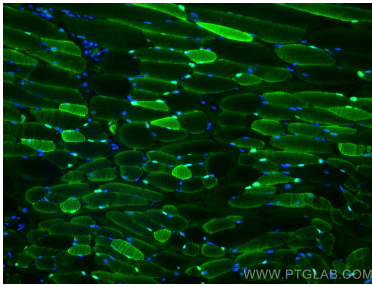
Various lysates were subjected to SDS PAGE followed by western blot with 15197-1-AP (CA3 antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours.



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 paraffin-embedded mouse skeletal muscle tissue using CA3 antibody (15197-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).