

CA3 Monoclonal antibody

Catalog Number: 66608-1-Ig

Basic Information

Catalog Number: 66608-1-Ig	GenBank Accession Number: BC004897	Purification Method: Protein A purification
Size: 150ul, Concentration: 1600 ug/ml by Nanodrop and 1000 ug/ml by Bradford method using BSA as the standard;	GeneID (NCBI): 761	CloneNo.: 3C10A2
Source: Mouse	UNIPROT ID: P07451	Recommended Dilutions: WB 1:20000-1:100000 IHC 1:500-1:2000 IF-P 1:200-1:800
Isotype: IgG2b	Full Name: carbonic anhydrase III, muscle specific	
Immunogen Catalog Number: AG7513	Calculated MW: 29 kDa	
	Observed MW: 29 kDa	

Applications

Tested Applications:

WB, IHC, IF-P, ELISA

Species Specificity:

human, mouse, rat, pig, rabbit

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: Caki-1 cells, pig esophagus tissue, human skeletal muscle tissue, pig skeletal muscle tissue, rat skeletal muscle tissue, mouse skeletal muscle tissue, rabbit skeletal muscle tissue

IHC: mouse skeletal muscle tissue,

IF-P: 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).

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

*** 20ul sizes contain 0.1% BSA

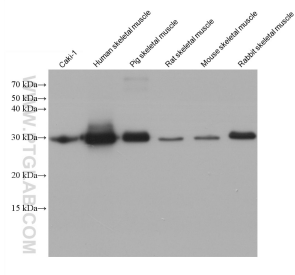
For technical support and original validation data for this product please contact:

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

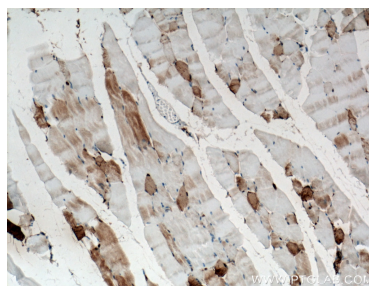
E: proteintech@ptglab.com
W: ptglab.com

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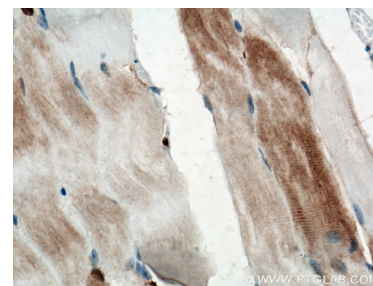
Selected Validation Data



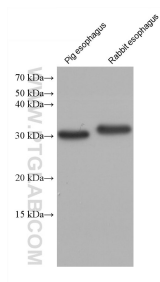
Various lysates were subjected to SDS PAGE followed by western blot with 66608-1-Ig (CA3 antibody) at dilution of 1:100000 incubated at room temperature for 1.5 hours.



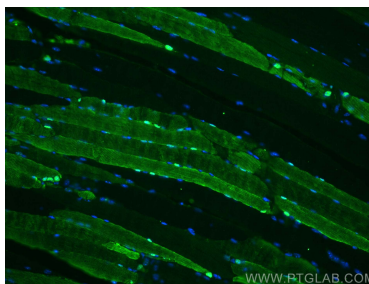
Immunohistochemical analysis of paraffin-embedded mouse skeletal muscle tissue slide using 66608-1-Ig (CA3 antibody) at dilution of 1:1000 (under 10x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse skeletal muscle tissue slide using 66608-1-Ig (CA3 antibody) at dilution of 1:1000 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Various lysates were subjected to SDS PAGE followed by western blot with 66608-1-Ig (CA3 antibody) at dilution of 1:100000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse skeletal muscle tissue using CA3 antibody (66608-1-Ig, Clone: 3C10A2) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) (SA00013-1). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).