



Anti-CA3 (aa 2-260) polyclonal antibody (DPAB-7213FY)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	Goat Anti-Human Carbonic Anhydrase III Polyclonal Antibody
Antigen Description	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.
Specificity	This antibody has been selected for its ability to recognize human CA3 in direct ELISAs and western blots. In these formats, this antibody shows approximately 5% cross-reactivity with rhCA1, -2, -4, -9, -10, -13 and -14.
Immunogen	E. coli-derived rhCA3 (aa 2 - 260)
Isotype	IgG
Source/Host	Goat
Species Reactivity	Human
Purification	Antigen Affinity-purified
Conjugate	Unconjugated
Applications	ELISA, WB, IP
Preparation	Produced in goats immunized with purified, E. coli-derived, recombinant human Carbonic Anhydrase III (rhCA3; aa 2 - 260). Human CA3 specific IgG was purified by human CA3 affinity

chromatography.

Reconstitution	Reconstitute with sterile PBS. If 0.5 mL of PBS is used, the antibody concentration will be 0.2 mg/mL.
Format	Lyophilized from a 0.2 µm filtered solution in phosphate-buffered saline (PBS) with 5% trehalose.
Preservative	None
Storage	Lyophilized samples are stable for twelve months from date of receipt when stored at -20°C to -70°C. Upon reconstitution, the antibody can be stored at 2°C - 8°C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20°C to -70°C in a manual defrost freezer for six months without detectable loss of activity. Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	CA3 carbonic anhydrase III, muscle specific [Homo sapiens]
Official Symbol	CA3
Synonyms	CA3; carbonic anhydrase III, muscle specific; carbonic anhydrase 3; CAIII; Car3; CA III; CA-III; Ca3; CAH3_HUMAN; CAIII; Car3; Carbonate dehydratase III; Carbonic anhydrase 3; Carbonic anhydrase III; Carbonic anhydrase III muscle specific; EC 4.2.1.1; CA-III; OTTHUMP00000227990; carbonate dehydratase III
Entrez Gene ID	761
Protein Refseq	NP_005172
UniProt ID	P07451
Chromosome Location	8q21.2
Pathway	Nitrogen metabolism, organism-specific biosystem; Nitrogen metabolism, conserved biosystem
Function	carbonate dehydratase activity; lyase activity; metal ion binding; nickel ion binding; zinc ion binding