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GGCX Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11117c

Product Information

Application	WB, IHC-P, E
Primary Accession	P38435
Other Accession	O88496, NP_000812.2
Reactivity	Human
Predicted	Rat, Mouse, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB19281
Calculated MW	87561
Antigen Region	548-578

Additional Information

Gene ID	2677
Other Names	Vitamin K-dependent gamma-carboxylase, Gamma-glutamyl carboxylase, Peptidyl-glutamate 4-carboxylase, Vitamin K gamma glutamyl carboxylase, GGCX, GC
Target/Specificity	This GGCX antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 548-578 amino acids from the Central region of human GGCX.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	GGCX Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GGCX
Synonyms	GC

Function	Mediates the vitamin K-dependent carboxylation of glutamate residues to calcium-binding gamma-carboxyglutamate (Gla) residues with the concomitant epoxidation of vitamin K hydroquinone to vitamin K epoxide (PubMed:17073445, PubMed:39880952, PubMed:39880037). Couples epoxidation and carboxylation in the same active site (PubMed:39880952, PubMed:39880037). Catalyzes gamma-carboxylation of blood coagulation factors (F2, F7, F9 and F10) and anticoagulants such as PROC, which are essential for thrombosis(PubMed:17073445, PubMed:39880037). Catalyzes gamma-carboxylation of osteocalcin/BGLAP, which is essential for bone metabolism (PubMed:17073445, PubMed:39880952). Catalyzes gamma-carboxylation of matrix Gla protein (MGP) and other transmembrane gamma-Gla proteins such as PRRG2, which are essential for calcium homeostasis and haemostasis (PubMed:17073445, PubMed:39880037).
Cellular Location	Endoplasmic reticulum membrane; Multi-pass membrane protein

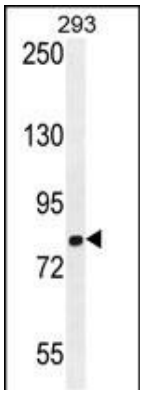
Background

This gene encodes an enzyme which catalyzes the posttranslational modification of vitamin K-dependent protein. Many of these vitamin K-dependent proteins are involved in coagulation so the function of the encoded enzyme is essential for hemostasis. Mutations in this gene are associated with vitamin K-dependent coagulation defect and PXE-like disorder with multiple coagulation factor deficiency. Multiple transcript variants encoding different isoforms have been found for this gene.

References

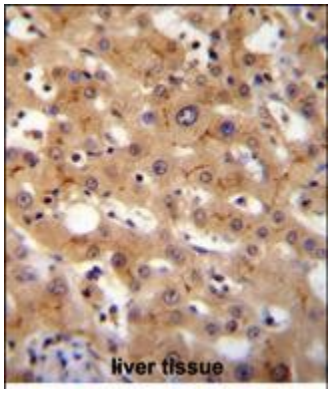
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Images



GGCX Antibody (Center) (Cat. #AP11117c) western blot analysis in 293 cell line lysates (35ug/lane).This demonstrates the GGCX antibody detected the GGCX protein (arrow).

GGCX Antibody (Center) (Cat. #AP11117c)immunohistochemistry analysis in formalin fixed and paraffin embedded human liver tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of GGCX Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.



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