

GGCX (N-14): sc-79252

BACKGROUND

GGCX (γ -glutamyl carboxylase), also known as GC or VKCFD1 (Vitamin K-dependent γ -carboxylase), is a 758 amino acid multi-pass membrane protein. Localized to the membrane of the endoplasmic reticulum, GGCX functions to mediate the vitamin K-dependent carboxylation of glutamate residues on target proteins, thereby producing calcium binding γ -carboxyglutamate (Gla) residues on these proteins and simultaneously converting vitamin K to vitamin K epoxide. GGCX exists as a monomer and, via its ability to modify glutamate residues, it accomplishes the post-translational changes that are necessary for the activity of all vitamin K-dependent proteins (such as blood coagulation and bone matrix proteins). Defects in the gene encoding GGCX are the cause of combined deficiency of vitamin K-dependent clotting factors 1 (VKCFD1) and PXE-like disorder with multiple coagulation factor deficiency, both of which are characterized by abnormal skin, blood or bone function.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GGCX (human) mapping to 2p11.2; Ggcx (mouse) mapping to 6 C1.

SOURCE

GGCX (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of GGCX of human origin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-79252 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GGCX (N-14) is recommended for detection of GGCX of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

GGCX (N-14) is also recommended for detection of GGCX in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for GGCX siRNA (h): sc-75125, GGCX siRNA (m): sc-75126, GGCX shRNA Plasmid (h): sc-75125-SH, GGCX shRNA Plasmid (m): sc-75126-SH, GGCX shRNA (h) Lentiviral Particles: sc-75125-V and GGCX shRNA (m) Lentiviral Particles: sc-75126-V.

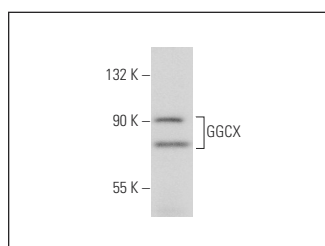
Molecular Weight of GGCX: 94 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or mouse liver extract: sc-2256.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



GGCX (N-14): sc-79252. Western blot analysis of GGCX expression in mouse liver tissue extract.

RESEARCH USE

For research use only, not for use in diagnostic procedures.