SANTA CRUZ BIOTECHNOLOGY, INC.

GNPDA1 (237CT2.5.2): sc-517332

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

During fertilization in mammals, the sperm activates the egg by causing an increase in the level of free cytoplasmic calcium concentration. This increased calcium concentration induces a characteristic series of oscillations that trigger egg activation and early embryo development. A hamster protein named oscillin is thought to be involved in this pathway. The enzyme glucosamine-6-phosphate isomerase (GNPI) or deaminase (GNPDA1) and the related protein GNPDA2 are the human homologs of hamster oscillin. GNPDA1 and GNPDA2 catalyze the conversion of GNP to fructose-6-phosphate and ammonia. Both proteins exist as homohexamers and are ubiquitously expressed with highest expression in testis, ovary and heart. Three isoforms of GNPDA2 are expressed due to alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GNPDA1 (human) mapping to 5q31.3; Gnpda1 (mouse) mapping to 18 B3.

SOURCE

GNPDA1 (237CT2.5.2) is a mouse monoclonal antibody raised against a recombinant protein corresponding to GNPDA1 of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

GNPDA1 (237CT2.5.2) is recommended for detection of GNPDA1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for GNPDA1 siRNA (h): sc-91867, GNPDA1 siRNA (m): sc-145656, GNPDA1 shRNA Plasmid (h): sc-91867-SH, GNPDA1 shRNA Plasmid (m): sc-145656-SH, GNPDA1 shRNA (h) Lentiviral Particles: sc-91867-V and GNPDA1 shRNA (m) Lentiviral Particles: sc-145656-V.

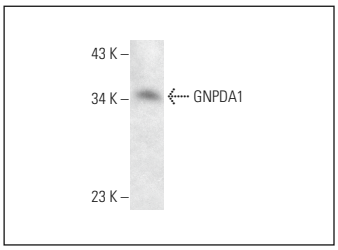
Molecular Weight of GNPDA1: 33 kDa.

Positive Controls: MIA PaCa-2 cell lysate: sc-2285.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



GNPDA1 (237CT2.5.2): sc-517332. Western blot analysis of GNPDA1 expression in MIA PaCa-2 whole cell lysate.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.