

PRODH (H-300): sc-98682

BACKGROUND

PRODH (proline dehydrogenase), also known as proline oxidase 2 (POX2), is a 516 amino acid protein belonging to the proline oxidase family. Induced during p53-induced apoptosis, PRODH catalyzes the first step in proline degradation by converting proline to δ -1-pyrroline-5-carboxylate. Defects in PRODH are the cause of hyperprolinemia type 1, a disorder characterized by elevated serum proline levels. Defects in PRODH may also be involved in the psychiatric and behavioral phenotypes associated with DiGeorge syndrome. Localized to the mitochondrion matrix, PRODH is expressed at higher levels in lung, brain and skeletal muscle and expressed at lower levels in heart, liver, kidney and pancreas. PRODH exists as two isoforms produced by alternative splicing.

REFERENCES

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4. Weksberg, R., et al. 2007. Molecular characterization of deletion breakpoints in adults with 22q11 deletion syndrome. *Hum. Genet.* 120: 837-845.
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CHROMOSOMAL LOCATION

Genetic locus: PRODH (human) mapping to 22q11.21; Prodh (mouse) mapping to 16 A3.

SOURCE

PRODH (H-300) is a rabbit polyclonal antibody raised against amino acids 13-312 mapping near the N-terminus of PRODH of human origin.

PRODUCT

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

RESEARCH USE

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

APPLICATIONS

PRODH (H-300) is recommended for detection of PRODH 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).

PRODH (H-300) is also recommended for detection of PRODH in additional species, including canine.

Suitable for use as control antibody for PRODH siRNA (h): sc-76252, PRODH siRNA (m): sc-76253, PRODH shRNA Plasmid (h): sc-76252-SH, PRODH shRNA Plasmid (m): sc-76253-SH, PRODH shRNA (h) Lentiviral Particles: sc-76252-V and PRODH shRNA (m) Lentiviral Particles: sc-76253-V.

Molecular Weight of PRODH: 68 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

STORAGE

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

PROTOCOLS

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



Try **PRODH (A-11): sc-376401**, our highly recommended monoclonal alternative to PRODH (H-300).