SANTA CRUZ BIOTECHNOLOGY, INC.

Carbonyl reductase 3 (H-51): sc-292142

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The Power to Question

BACKGROUND

Carbonyl reductase 1 and Carbonyl reductase 3 belong to the family of short-chain dehydrogenase/reductase proteins that play a role in metabolism throughout the body. Both proteins are monomeric carbonyl reductases that function to catalyze the NADPH-dependent reduction of various carbonyls (generally products of lipid peroxidation) to their corresponding alcohols. Carbonyl reductase 1 and Carbonyl reductase 3 share high sequence similarity at the amino acid level and are responsible for the metabolism of not only endogenous compounds, but of various pharmacological products, as well. Genetic polymorphisms in both proteins result in individual variability at the level of drug metabolism. Defects in the genes encoding Carbonyl reductase proteins have implications in cancer, diabetes and errors in metabolism.

REFERENCES

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4. Lakhman, S.S., et al. 2005. Functional significance of a natural allelic variant of human carbonyl reductase 3 (CBR3). Drug Metab. Dispos. 33: 254-257.
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CHROMOSOMAL LOCATION

Genetic locus: CBR3 (human) mapping to 21q22.12.

SOURCE

Carbonyl reductase 3 (H-51) is a rabbit polyclonal antibody raised against amino acids 126-176 mapping within an internal region of Carbonyl reductase 3 of human origin.

PRODUCT

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

APPLICATIONS

Carbonyl reductase 3 (H-51) is recommended for detection of Carbonyl reductase 3 of human and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

Suitable for use as control antibody for Carbonyl reductase 3 siRNA (h): sc-72793, Carbonyl reductase 3 shRNA Plasmid (h): sc-72793-SH and Carbonyl reductase 3 shRNA (h) Lentiviral Particles: sc-72793-V.

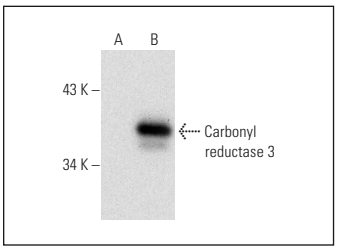
Molecular Weight of Carbonyl reductase 3: 31 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, K-562 whole cell lysate: sc-2203 or Carbonyl reductase 3 (h): 293T Lysate: sc-158338.

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.

DATA



Carbonyl reductase 3 (H-51): sc-292142. Western blot analysis of Carbonyl reductase 3 expression in non-transfected: sc-117752 (**A**) and human Carbonyl reductase 3 transfected: sc-158338 (**B**) 293T whole cell lysates.

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.