

Carbonyl reductase 1/2/3 (M-94): sc-292143

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

1. Watanabe, K., et al. 1999. Mapping of a novel human carbonyl reductase, CBR3, and ribosomal pseudogenes to human chromosome 21q22.2. *Genomics* 52: 95-100.
2. Terada, T., et al. 2001. Cloning and bacterial expression of monomeric short-chain dehydrogenase/reductase (carbonyl reductase) from CHO-K1 cells. *Eur. J. Biochem.* 267: 6849-6857.

CHROMOSOMAL LOCATION

Genetic locus: Cbr1/Cbr3 (mouse) mapping to 16 C4, Cbr2 (mouse) mapping to 11 E2.

SOURCE

Carbonyl reductase 1/2/3 (M-94) is a rabbit polyclonal antibody raised against amino acids 1-94 mapping at the N-terminus of Carbonyl reductase 3 of mouse 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 1/2/3 (M-94) is recommended for detection of Carbonyl reductase 1, 2 and 3 of mouse 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).

Carbonyl reductase 1/2/3 (M-94) is also recommended for detection of Carbonyl reductase 1, 2 and 3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Carbonyl reductase siRNA (m): sc-72794, Carbonyl reductase 3 shRNA Plasmid (m): sc-72794-SH and Carbonyl reductase 3 shRNA (m) Lentiviral Particles: sc-72794-V.

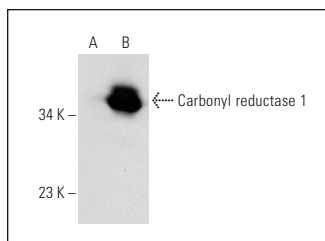
Molecular Weight of Carbonyl reductase 1/2/3: 31 kDa.

Positive Controls: Carbonyl reductase 1 (m): 293T Lysate: sc-118997.

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 1/2/3 (M-94): sc-292143. Western blot analysis of Carbonyl reductase 1 expression in non-transfected: sc-117752 (A) and mouse Carbonyl reductase 1 transfected: sc-118997 (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.

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **Carbonyl reductase 1/2/3 (E-5): sc-377174** or **Carbonyl reductase 1 (B-11): sc-390554**, our highly recommended monoclonal alternatives to Carbonyl reductase 1/2/3 (M-94).