SANTA CRUZ BIOTECHNOLOGY, INC.

PON1 (J-24): sc-133919

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Paroxon is an organophosphorus anticholinesterase compound, used topically in the treatment of glaucoma. It is produced *in vivo* in mammals by microsomal oxidation of the insecticide parathion. Parathion is inert until transformed to paroxon. Paroxonase (paraoxonase or PON) is an arylesterase that is capable of hydrolyzing paroxon to produce p-nitrophenol. PONs are nonspecific and their classification is based not only on substrate specificity but also on tissue distribution, inhibition properties, and physicochemical characteristics such as electrophoretic mobility and molecular weight. In contrast to PON1, which is expressed mainly in the liver, PON2 is expressed in a variety of mouse tissues, including the pancreas. PON3 is associated with the high density lipoprotein fraction of serum. The genes which encode PON1-3 are physically linked and map to human chromosome 7q21.3.

REFERENCES

1. Coates, P.M., Mestriner, M.A. and Hopkinson, D.A. 1975. A preliminary genetic interpretation of the esterase isozymes of human tissues. Ann. Hum. Genet. 39: 1-20.
2. Humbert, R., Adler, D.A., Disteche, C.M., Hassett, C., Omiecinski, C.J. and Furlong, C.E. 1993. The molecular basis of the human serum paraoxonase activity polymorphism. Nat. Genet. 3: 73-76.

CHROMOSOMAL LOCATION

Genetic locus: PON1 (human) mapping to 7q21.3; Pon1 (mouse) mapping to 6 A1.

SOURCE

PON1 (J-24) is a an affinity purified rabbit polyclonal antibody raised against peptide mapping at the C-terminus of PON1 of human origin.

PRODUCT

Each vial contains 50 µg IgG in 0.5 ml of PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

PON1 (J-24) is recommended for detection of PON1 of mouse, rat and human 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PON1 (J-24) is also recommended for detection of PON1 in additional species, including equine, bovine and canine.

Suitable for use as control antibody for PON1 siRNA (h): sc-44031, PON1 siRNA (m): sc-44406, PON1 shRNA Plasmid (h): sc-44031-SH, PON1 shRNA Plasmid (m): sc-44406-SH, PON1 shRNA (h) Lentiviral Particles: sc-44031-V and PON1 shRNA (m) Lentiviral Particles: sc-44406-V.

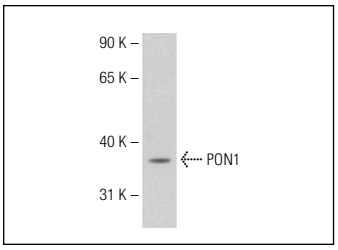
Molecular Weight of PON1: 43 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Hep G2 cell lysate: sc-2227 or human fetal liver tissue extract.

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).

DATA



PON1 (J-24): sc-133919. Western blot analysis of PON1 expression in human fetal liver tissue extract.

SELECT PRODUCT CITATIONS

1. Ferrin, G., Rodríguez-Perálvarez, M., Aguilar-Melero, P., Ranchal, I., Llamoza, C., Linares, C.I., González-Rubio, S., Muntane, J., Briceno, J., López-Cillero, P., Montero-Álvarez, J,L. and de la Mata, M. 2015. Plasma protein biomarkers of hepatocellular carcinoma in HCV-infected alcoholic patients with cirrhosis. PLoS ONE 10: 1-14.

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.