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PIPOX (h): 293T Lysate: sc-170328

BACKGROUND

PIPOX (pipercolic acid oxidase), also known as LPIPOX or PSO, is a 390 amino acid protein that localizes to the peroxisome and belongs to the MSOX/MTOX family. Existing as a monomer, PIPOX uses FAD as a cofactor to catalyze the metabolism and subsequent degradation of sarcosine, L-pipercolic acid and L-proline. The gene encoding PIPOX maps to human chromosome 17q11.2, which comprises over 2.5% of the human genome and encodes over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1. Tumor suppressor p53 is necessary for maintenance of cellular genetic integrity by moderating cell fate through DNA repair versus cell death. Malfunction or loss of p53 expression is associated with malignant cell growth and Li-Fraumeni syndrome. Like p53, BRCA1 is directly involved in DNA repair, though specifically it is recognized as a genetic determinant of early onset breast cancer and predisposition to cancers of the ovary, colon, prostate gland and fallopian tubes.

REFERENCES

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2. IJlst, L., de Kromme, I., Oostheim, W. and Wanders, R.J. 2000. Molecular cloning and expression of human L-pipercolate oxidase. *Biochem. Biophys. Res. Commun.* 270: 1101-1105.
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5. Chikayama, M., Ohsumi, M. and Yokota, S. 2000. Enzyme cytochemical localization of sarcosine oxidase activity in the liver and kidney of several mammals. *Histochem. Cell Biol.* 113: 489-495.
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CHROMOSOMAL LOCATION

Genetic locus: PIPOX (human) mapping to 17q11.2.

PRODUCT

PIPOX (h): 293T Lysate represents a lysate of human PIPOX transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

PIPOX (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive PIPOX antibodies. Recommended use: 10-20 µl per lane.

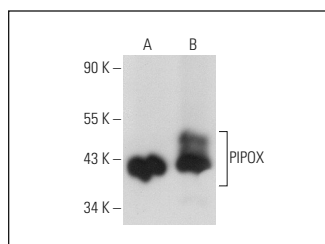
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

PIPOX (F-9): sc-166749 is recommended as a positive control antibody for Western Blot analysis of enhanced human PIPOX expression in PIPOX transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



PIPOX (F-9): sc-166749. Western blot analysis of PIPOX expression in non-transfected: sc-117752 (A) and human PIPOX transfected: sc-170328 (B) 293T whole cell lysates.

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.