SANTA CRUZ BIOTECHNOLOGY, INC.

CYP2W1 (h2): 293T Lysate: sc-158417

BACKGROUND

P450 enzymes constitute a family of monooxygenase enzymes that are involved in the metabolism of a wide array of endogenous and xenobiotic compounds. There are currently 57 known active cytochrome P450 (CYP) genes and 58 known pseudogenes present in the human genome. Several P450 enzymes have been classified by sequence similarities as members of the CYP1A and CYP2A subfamilies. CYP2W1 is a 490 amino acid protein that belongs to the CYP2 family of cytochrome P450 proteins. These proteins are usually involved in the metabolism of foreign compounds. CYP2W1 metabolizes arachidonic acid and catalyzes the oxidation of indole. CP2W1 represents a tumor-specific P450 isoform that is universally conserved in vertebrates and is a potential drug target in cancer therapeutics.

REFERENCES

1. Ingelman-Sundberg, M. 2005. The human genome project and novel aspects of cytochrome P450 research. Toxicol. Appl. Pharmacol. 207: 52-56.
2. Karlgren, M., Miura, S. and Ingelman-Sundberg, M. 2005. Novel extrahepatic cytochrome P450s. Toxicol. Appl. Pharmacol. 207: 57-61.
3. Kumarakulasingham, M., Rooney, P.H., Dundas, S.R., Telfer, C., Melvin, W.T., Curran, S. and Murray, G.I. 2005. Cytochrome P450 profile of colorectal cancer: identification of markers of prognosis. Clin. Cancer Res. 11: 3758-3765.
4. Karlgren, M., Gomez, A., Stark, K., Svärd, J., Rodriguez-Antona, C., Oliw, E., Bernal, M.L., Ramón y Cajal, S., Johansson, I. and Ingelman-Sundberg, M. 2006. Tumor-specific expression of the novel cytochrome P450 enzyme, CYP2W1. Biochem. Biophys. Res. Commun. 341: 451-458.
5. Yoshioka, H., Kasai, N., Ikushiro, S., Shinkyo, R., Kamakura, M., Ohta, M., Inouye, K. and Sakaki, T. 2006. Enzymatic properties of human CYP2W1 expressed in *Escherichia coli*. Biochem. Biophys. Res. Commun. 345: 169-174.

CHROMOSOMAL LOCATION

Genetic locus: CYP2W1 (human) mapping to 7p22.3.

PRODUCT

CYP2W1 (h2): 293T Lysate represents a lysate of human CYP2W1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

CYP2W1 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive CYP2W1 antibodies. Recommended use: 10-20 µl per lane.

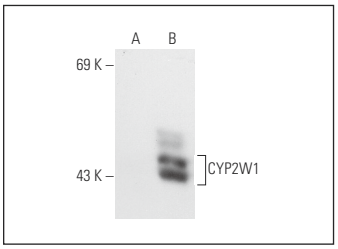
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

CYP2W1 (G-11): sc-166331 is recommended as a positive control antibody for Western Blot analysis of enhanced human CYP2W1 expression in CYP2W1 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



CYP2W1 (G-11): sc-166331. Western blot analysis of CYP2W1 expression in non-transfected: sc-110760 (**A**) and human CYP2W1 transfected: sc-158417 (**B**) 293 whole cell lysates.

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.

PROTOCOLS

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