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## Produktinformation



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Diagnostik & molekulare Diagnostik



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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# CYP4F12 (h2): 293T Lysate: sc-175639

## BACKGROUND

Cytochrome P450 proteins are heme-thiolate monooxygenases that mediate NADPH-dependent electron transport and function to oxidize a variety of structurally unrelated compounds, including steroids, fatty acids and xenobiotics. Specifically, cytochrome P450s are responsible for metabolizing arachidonic acid to hydroxyeicosatetraenoic acid (a regulator of blood pressure) and epoxyeicosatrienoic acid (a molecule involved in signaling events). CYP4F12 (cytochrome P450, family 4, subfamily F, polypeptide 12) is a 524 amino acid multi-pass membrane protein that localizes to both the microsomes and the endoplasmic reticulum and is expressed in heart, liver, colon and small intestine. Using heme as a cofactor, CYP4F12 functions to catalyze leukotriene B<sub>4</sub> omega-hydroxylation and arachidonic acid  $\omega$ -hydroxylation, as well as the hydroxylation of ebastine, an antihistamine.

## REFERENCES

1. Simpson, A.E. 1997. The cytochrome P450 4 (CYP4) family. *Gen. Pharmacol.* 28: 351-359.
2. Bylund, J., et al. 2001. cDNA cloning and expression of CYP4F12, a novel human cytochrome P450. *Biochem. Biophys. Res. Commun.* 280: 892-897.
3. Hashizume, T., et al. 2001. cDNA cloning and expression of a novel cytochrome p450 (cyp4f12) from human small intestine. *Biochem. Biophys. Res. Commun.* 280: 1135-1141.
4. Cauffiez, C., et al. 2004. Human CYP4F12 genetic polymorphism: identification and functional characterization of seven variant allozymes. *Biochem. Pharmacol.* 68: 2417-2425.
5. Nelson, D.R., et al. 2004. Comparison of cytochrome P450 (CYP) genes from the mouse and human genomes, including nomenclature recommendations for genes, pseudogenes and alternative-splice variants. *Pharmacogenetics* 14: 1-18.
6. Stark, K., et al. 2005. Oxygenation of polyunsaturated long chain fatty acids by recombinant CYP4F8 and CYP4F12 and catalytic importance of Tyr-125 and Gly-328 of CYP4F8. *Arch. Biochem. Biophys.* 441: 174-181.
7. Online Mendelian Inheritance in Man, OMIM™. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 611485. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: CYP4F12 (human) mapping to 19p13.12.

## PRODUCT

CYP4F12 (h): 293T Lysate represents a lysate of human CYP4F12 transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## APPLICATIONS

CYP4F12 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive CYP4F12 antibodies. Recommended use: 10-20  $\mu$ l per lane.

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

## 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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.