

PRODUCT DATA SHEET



Comment [M1]: New product description

Comment [M2]: New batch number

Product name(s):	Cytochrome P450 2E1 (CYP2E1; rat/human), rabbit pAb				
Catalogue number:	CR 3271	Batch number:	Z05807	Expiry date:	12 months from receipt

Background:

The cytochrome P450 superfamily of heme-thiolate mono-oxygenases play a key role in the oxidative metabolism of many endogenous and exogenous molecules^{1,2,3}, and are classified by their primary structure into four main groups¹. It is an ancient superfamily, which has been identified in prokaryotes and in many types of eukaryotic cells⁴.

Cytochrome P450 2 family, (CYP2)

This is the largest of the four groups, having five sub-families, 2A-2E.

CYP2E1 is principally found in the liver, and is ethanol-inducible. It catalyses many biotransformations which have been recently reviewed⁵. In rat brain, CYP2E1 is localised to cells within the *substantia nigra* and in striatal blood vessels where a possible rôle in the pathology of oxidative stress, believed to underlie nigral degeneration has been proposed⁶. Recently, increased expression of human CYP2E1 mRNA, along with that of several other CYP genes, has been found in the uterine endometrium of patients treated with tamoxifen⁷.

Product Information:

The antiserum, Raised in New Zealand White rabbits, was raised to a synthetic hexapeptide corresponding to the C-terminal of hepatic human⁸, rat⁹, rabbit¹⁰, and mouse¹¹ CYP2E1 which was conjugated to keyhole limpet haemocyanin using a maleimido linkage¹².

Application data

The antiserum detects **CYP2E1** in rat liver microsomal preparations and in rat brain by Western blotting (~57kDa) and in immunohistochemical applications at a dilution of 1:1000 or greater when using sensitive detection methods*.

*Such as enhanced chemiluminescence (ECL; Amersham) for Western blotting applications, and ABC-Elite (Vector Laboratories) for immunohistochemistry. The use of 2-4% neutral-buffered formaldehyde or methacarn fixation is recommended. Frozen sections are recommended, but de-waxed tissue sections have also been used satisfactorily¹³. Antigen retrieval techniques may enhance signal generation.

Storage and use:

Store unopened vial at -20°C until required for use. AVOID REPEATED FREEZE-THAW CYCLES. Aliquot undiluted antibody into smaller volumes prior to freezing if appropriate. Store diluted antibody at 2-4°C and use within 1 month.

Dilute to working strength with 50mM Tris-HCl buffer (pH 7.6) containing 1.5% sodium chloride and 1% normal goat serum (if a goat anti-rabbit IgG linker antibody is to be used).

References:

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