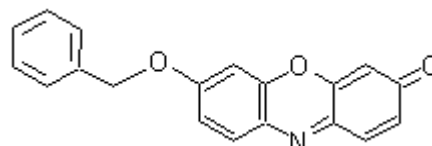


## Resorufin ether substrates

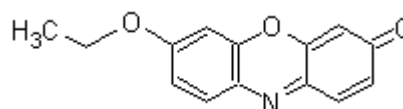
*Fluorescent substrates to differentiate cytochrome P450 isoforms*

### Product Description

<b>Name :</b>	<b>Resorufin Benzyl Ether</b> 3H-Phenoxazin-3-one, 7-phenylmethoxy
<b>Catalog Number :</b>	FP-475691      10mg
<b>CAS :</b>	87687-02-3
<b>Structure :</b>	C <sub>19</sub> H <sub>13</sub> NO <sub>3</sub>
<b>Molecular Weight :</b>	MW= 303,32
<b>Solubility:</b>	DMSO, DMF
<b>Absorption / Emission :</b>	$\lambda_{exc} \backslash \lambda_{em}$ (after reaction) = 571/585nm



<b>Name :</b>	<b>Resorufin Ethyl Ether</b> 3H-Phenoxazin-3-one, 7-ethoxy-
<b>Catalog Number :</b>	FP-40238A      5mg
<b>CAS :</b>	5725-91-7
<b>Structure :</b>	C <sub>14</sub> H <sub>11</sub> NO <sub>3</sub>
<b>Molecular Weight :</b>	MW= 241,25
<b>Solubility:</b>	DMSO, DMF
<b>Absorption / Emission :</b>	$\lambda_{exc} \backslash \lambda_{em}$ (after reaction) = 571/585nm



**Storage:**      Store at room temperature or -20°C for long term storage.      Protect from light and moisture

### Introduction

These fluorogenic resorufin ethers are widely used for monitoring P450 activities in cell extracts and solutions. Cytochrome P450 oxidase (CYP450) is a large number of evolutionary related oxidative enzymes important in animal, plant, and bacterial physiology. Most cytochromes P450 (CYPs) have about 500 amino acids and a heme group at the active site.

### Directions for use

#### Guidelines for use

Substrate working concentrations given in the literature range widely from about 1 to 50  $\mu$ M. In most cases, the substrate stock solution in DMSO or DMF is diluted into the assay buffer just prior to initiating the assay by addition of the enzyme preparation, microsomes, or cells. Samples are generally incubated in substrate containing buffers for periods ranging from several minutes to several hours at 37°C. Quantitative studies universally employ high purity reference standard for assay standardization.

Protocol may be found in the literature.

FT-475691

## References

- Lussenburg BM, *et al.* "Evaluation of alkoxyresorufins as fluorescent substrates for cytochrome P450 BM3 and site-directed mutants." (2005), *Anal Biochem* 341: 148-55.
- Rifkind A.B., *et al.* "Purification and biochemical characterization of two major cytochrome P-450 isoforms induced by 2,3,7,8-tetrachlorodibenzo-p-dioxin in chick embryo liver." (1994) *J. Biol. Chem.* 269: 3387-3396.
- Nerurkar P.V., *et al.* "Methoxyresorufin and benzyloxyresorufin: substrates preferentially metabolized by cytochromes P4501A2 and 2B, respectively, in the rat and mouse." (1993) *Biochem. Pharmacol.* 46: 933-943.
- Merk H.F., *et al.*, "7-Ethoxyresorufin-O-deethylase activity in human hair roots: a potential marker for toxifying species of cytochrome P-450 isozymes." (1987) *Biochem. Biophys. Res. Commun.* 148: 755-761
- Wolf C.R., *et al.*, "Multiple forms of cytochrome P-450 related to forms induced marginally by phenobarbital. Differences in structure and in the metabolism of alkoxyresorufins." (1986) *Biochem. J.* 240: 27-33.

## Technical and scientific information

### Related / associated products and documents

See [Products Highlights](#), [BioSciences Innovations catalogue](#) and [e-search tool](#).

- Resorufin sodium salt, reference standard, [FP-47570B](#)
- Fluorescamine, [FP-12631E](#)
- Fluorescamine Protein Quantitation Kit, [CJF920](#)

## Ordering information

[Catalog size quantities and prices may be found at www.interchim.com/](#)

Please inquire for higher quantities (availability, shipment conditions).

For any information, please ask : FluoProbes® / Interchim; Hotline : +33(0)4 70 03 73 06

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