

## Recombinant Mouse Fmo5 Protein, Myc/DDK-tagged

**Cat. No.** Fmo5-3056M    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| <b>Product Overview</b> | Purified recombinant protein of mouse full-length flavin containing monooxygenase 5 (Fmo5), with C-terminal MYC/DDK tag, expressed in HEK293T cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Species</b>          | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Source</b>           | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Description</b>      | Acts as Baeyer-Villiger monooxygenase on a broad range of substrates. Catalyzes the insertion of an oxygen atom into a carbon-carbon bond adjacent to a carbonyl, which converts ketones to esters. Active on diverse carbonyl compounds, whereas soft nucleophiles are mostly non- or poorly reactive. In contrast with other forms of FMO it is non- or poorly active on 'classical' substrates such as drugs, pesticides, and dietary components containing soft nucleophilic heteroatoms. Able to oxidize drug molecules bearing a carbonyl group on an aliphatic chain, such as nabumetone and pentoxifylline. Also, in the absence of substrates, shows slow but yet significant NADPH oxidase activity. Acts as a positive modulator of cholesterol biosynthesis as well as glucose homeostasis, promoting metabolic aging via pleiotropic effects. |
| <b>Molecular Mass</b>   | 60 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Purity</b>           | > 80% as determined by SDS-PAGE and Coomassie blue staining                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Stability</b>        | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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|-----------------------|-------------------------------------------------------|
| <b>Storage</b>        | Store at -80 centigrade after receiving vials.        |
| <b>Concentration</b>  | >50 µg/mL as determined by microplate BCA method      |
| <b>Storage Buffer</b> | 25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol. |

## GENE INFORMATION

|                        |                                                                                                                                                                                                  |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | Fmo5 flavin containing monooxygenase 5 [ Mus musculus (house mouse) ]                                                                                                                            |
| <b>Official Symbol</b> | Fmo5                                                                                                                                                                                             |
| <b>Synonyms</b>        | FMO5; flavin containing monooxygenase 5; dimethylaniline monooxygenase [N-oxide-forming] 5; FMO 5; dimethylaniline oxidase 5; hepatic flavin-containing monooxygenase 5; AI195026; 5033418D19Rik |
| <b>Gene ID</b>         | 14263                                                                                                                                                                                            |
| <b>mRNA Refseq</b>     | NM_010232                                                                                                                                                                                        |
| <b>Protein Refseq</b>  | NP_034362                                                                                                                                                                                        |
| <b>UniProt ID</b>      | P97872                                                                                                                                                                                           |

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