

Table S2 Genes used for heterologous expression in this study

Protein	Origin Species	Abbreviated protein name	GenBank Accession Code
Squalene epoxidase	<i>Saccharomyces cerevisiae</i>	ERG1	NP_011691.1
$\Delta 7(8)$ -sterol reductase	<i>Danio rerio</i>	DrDHCR7	NP_958487.2
$\Delta 24(25)$ -sterol reductase	<i>Gallus gallus</i>	GgDHCR24	NP_001026459.1
Cytochrome P450 reductase	<i>Vitis vinifera</i>	VvCPR	According the the reference: Met Eng. 2022,70,115-128
Cholesterol 22-hydroxylase	<i>Veratrum californicum</i>	VcCYP90B27	AJT59558.1
22-Hydroxycholesterol 26-oxidase	<i>Veratrum californicum</i>	VcCYP94N1	AJT59561.1
22-Hydroxycholesterol-26-al 26-transaminase	<i>Veratrum californicum</i>	VcGABAT1	AJT59569.1
22-Hydroxy-26-amincholesterol 22-oxidase	<i>Veratrum californicum</i>	VcCYP90G1	AJT59566.1