FMO4 siRNA – Dimethylaniline Monooxygenase (Human)

PRODUCT OVERVIEW

Product Name	FMO4, siRNA
Full Product Name	FMO4 siRNA (Human)
Product Gene Name	FMO4 sirna
Product Synonym Names	FMO2; Dimethylaniline monooxygenase [N-oxide-forming] 4; Dimethylaniline oxidase 4; Hepatic flavin-containing monooxygenase 4; FMO 4
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	FMO4 siRNA (Human) is a target-specific 19-23 nt siRNA oligo duplexes designed to knock down gene expression.
Preparation and Storage	Shipped at 4 degree C. Store at -20 degree C for one year.
Molecular Weight	63,343 Da
OMIM	136131
3D Structure	ModBase 3D Structure for P31512
Negative Control	siRNA Negative Control (Catalog# MBS8241404) is a non-targeting 21 nt siRNA recommended as a negative control for experiments using targeted siRNA transfection.
Quality Control	Oligonucleotide synthesis is monitored base by base through trityl analysis to ensure appropriate coupling efficiency. The oligo is subsequently purified by affinity-solid phase extraction. The annealed RNA duplex is further analyzed by mass spectrometry to verify the exact composition of the duplex. Each lot is compared to the previous lot by mass spectrometry to ensure maximum lot-to-lot consistency.
Directions for Use	We recommends transfection with 100 nM siRNA 48 to 72 hours prior to cell lysis. Before resuspending, briefly centrifuge the tube to ensure the lyophilized siRNA is at the bottom of the tube. Resuspend the siRNA oligos to an appropriate concentration with DEPC water. For each vial, suitable for 250 transfections in 24 well plate (20 pmol for each well).
Components	We offer pre-designed sets of 3 different target-specific siRNA oligo duplexes of human FMO4 gene. Each vial contains 5 nmol of lyophilized siRNA. The duplexes can be transfected individually or pooled together to achieve knockdown of the target gene, which is most commonly assessed by qPCR or western blot. Our siRNA oligos are also chemically modified (2'-OMe) at no extra charge for increased stability and enhanced knockdown in vitro and in vivo.
Applications Tested/Suitable for FMO4 sirna	RNA Interference (RNAi)
Related Product Information for FMO4 sirna	MBS8207436 is an siRNA targeting FMO4. Also known as FMO4 siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit FMO4 expression using RNA interference
Other Notes	Small volumes of FMO4 sirna vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for FMO4. It may not necessarily be applicable to this product.

NCBI GI #	4503759
NCBI GeneID	2329
NCBI Accession #	NP_002013.1
UniProt Primary Accession #	P31512
UniProt Secondary Accession #	Q53XR0
UniProt Related Accession #	P31512
GenBank Nucleotide #	NM_002022.2
NCBI Official Full Name	dimethylaniline monooxygenase
NCBI Official Synonym Full Names	flavin containing monooxygenase 4
NCBI Official Symbol	FMO4
NCBI Official Synonym Symbols	FMO2
UniProt Protein Name	Dimethylaniline monooxygenase [N-oxide-forming] 4
UniProt Synonym Protein Names	Dimethylaniline oxidase 4; Hepatic flavin-containing monooxygenase 4; FMO 4
Protein Family	Dimethylaniline monooxygenase
UniProt Gene Name	FMO4
UniProt Synonym Gene Names	FMO2; FMO 4
UniProt Entry Name	FMO4_HUMAN
NCBI Protein Information	dimethylaniline monooxygenase [N-oxide-forming] 4
NCBI Summary for FMO4	Metabolic N-oxidation of diet-derived amino-trimethylamine (TMA) is mediated by flavin-containing monooxygenase and is subject to an inherited FMO3 polymorphism in man. This results in a small subpopulation with reduced TMA N-oxidation capacity and causes fish odor syndrome (Trimethylaminuria). Three forms of the enzyme are encoded by genes clustered in the 1q23-q25 region. Flavin-containing monooxygenases are NADPH-dependent flavoenzymes that catalyzes the oxidation of soft nucleophilic heteroatom centers in drugs, pesticides, and xenobiotics. [provided by RefSeq, Jan 2015]
UniProt Comments for FMO4	FMO4: This protein is involved in the oxidative metabolism of a variety of xenobiotics such as drugs and pesticides. Belongs to the FMO family. Protein type: Membrane protein, integral; EC 1.14.13.8; Xenobiotic Metabolism - drug metabolism - cytochrome P450; Oxidoreductase Chromosomal Location of Human Ortholog: 1q24.3 Cellular Component: endoplasmic reticulum membrane; integral to membrane Molecular Function: FAD binding; NADP binding; flavin-containing monooxygenase activity Biological Process: drug catabolic process
Research Articles on FMO4	**1.** Observational study of gene-disease association. (HuGE Navigator)
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.

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