# SGMS1 Lysate – Tissue Lysate

## PRODUCT OVERVIEW

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| **Product Name** | SGMS1, Lysate |
| **Full Product Name** | Human SGMS1 Protein Lysate |
| **Product Gene Name** | SGMS1 lysate |
| **Product Synonym Names** | SGMS1; hmob33; MOB; MOB1; SMS1; TMEM23 |
| **Host** | Human |
| **Form/Format** | Lyophilized |
| **Preparation and Storage** | Store at -20 degree C<br>Once reconsituted, aliquot and store any remaining material at-20 degree C to avoid repeated freeze-thaw cycles. |
| **Molecular Weight** | 48kDa |
| **OMIM** | 611573 |
| **3D Structure** | ModBase 3D Structure for Q86VZ5 |
| **Related Product Information for SGMS1 lysate** | Human SGMS1 Protein Lysate 20ug is provided as a Lyophilized powder.<br>This is a Recombinant Protein Lysate produced in HEK293T cells. This protein lysate can be reconsituted using SDS Sample Buffer. |
| **Other Notes** | Small volumes of SGMS1 lysate 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. |
| **Searchable Terms for SGMS1 purchase** | MBS8419360 is a lysate targeting SGMS1. Also known as Human SGMS1 Protein Lysate. Host: Human. |

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SGMS1. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 29789379 |
| **NCBI GeneID** | 259230 |
| **NCBI Accession #** | NP_671512 |
| **UniProt Primary Accession #** | Q86VZ5 |
| **UniProt Related Accession #** | Q86VZ5 |
| **GenBank Nucleotide #** | NM_147156 |
| **NCBI Official Full Name** | phosphatidylcholine:ceramide cholinephosphotransferase 1 |
| **NCBI Official Synonym Full Names** | sphingomyelin synthase 1 |
| **NCBI Official Symbol** | SGMS1 |
| **NCBI Official Synonym Symbols** | MOB; MOB1; SMS1; TMEM23; hmob33 |
| **UniProt Protein Name** | Phosphatidylcholine:ceramide cholinephosphotransferase 1 |
| **UniProt Synonym Protein Names** | Medulla oblongata-derived protein; Protein Mob; Sphingomyelin synthase 1; Transmembrane protein 23 |
| **Protein Family** | Phosphatidylcholine:ceramide cholinephosphotransferase |

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| **UniProt Gene Name** | SGMS1 |
| **UniProt Synonym Gene Names** | MOB; SMS1; TMEM23; Protein Mob |
| **UniProt Entry Name** | SMS1_HUMAN |
| **NCBI Protein Information** | phosphatidylcholine:ceramide cholinephosphotransferase 1 |
| **NCBI Summary for SGMS1** | The protein encoded by this gene is predicted to be a five-pass transmembrane protein. This gene may be predominately expressed in brain. [provided by RefSeq, Jul 2008] |
| **UniProt Comments for SGMS1** | TMEM23: Sphingomyelin synthases synthesize the sphingolipid, sphingomyelin, through transfer of the phosphatidyl head group, phosphatidylcholine, on to the primary hydroxyl of ceramide. The reaction is bidirectional depending on the respective levels of the sphingolipid and ceramide. Golgi apparatus SMS1 directly and specifically recognizes the choline head group on the substrate, requiring two fatty chains on the choline-P donor molecule in order to be recognized efficiently as a substrate. Major form in macrophages. Required for cell growth in certain cell types such as HeLa cells. Suppresses BAX-mediated apoptosis and also prevents cell death in response to stimuli such as hydrogen peroxide, osmotic stress, elevated temperature and exogenously supplied sphingolipids. May protect against cell death by reversing the stress-inducible increase in levels of proapoptotic ceramide. Belongs to the sphingomyelin synthase family. 2 isoforms of the human protein are produced by alternative splicing.<br><br>Protein type: Membrane protein, multi-pass; EC 2.7.8.27; Membrane protein, integral; Lipid Metabolism - sphingolipid; Transferase<br><br>Chromosomal Location of Human Ortholog: 10q11.2<br><br>Cellular Component: Golgi membrane; membrane; endoplasmic reticulum; Golgi trans cisterna; plasma membrane; integral to Golgi membrane; nucleus<br><br>Molecular Function: sphingomyelin synthase activity; kinase activity; ceramide cholinephosphotransferase activity<br><br>Biological Process: sphingolipid metabolic process; sphingolipid biosynthetic process; apoptosis; cell growth; sphingomyelin biosynthetic process; inflammatory response; phosphorylation |
| **Research Articles on SGMS1** | **1.** An oncogene-Bcr-Abl-has been demonstrated to drive such a mechanism that up-regulates the expression of a functionally important target gene, SMS1. |
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