Spermine (SM) ELISA Kit for Rabbit

PRODUCT OVERVIEW

Product Name	Spermine (SM), ELISA Kit
Full Product Name	Rabbit Spermine ELISA Kit
Product Gene Name	SM elisa kit
Species Reactivity	Rabbit
Assay Type	Sandwich
Preparation and Storage	Store all reagents at 2-8 degree C
Molecular Weight	61,819 Da
3D Structure	ModBase 3D Structure for Q9NWM0
Related Product Information for SM elisa kit	MBS009684 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Spermine (SM) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing SM. The ELISA analytical biochemical technique of the MBS009684 kit is based on SM antibody-SM antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect SM antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, SM. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).
Other Notes	Small volumes of SM elisa kit 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 SM. It may not necessarily be applicable to this product.

NCBI GI #	397739047
NCBI GeneID	54498
NCBI Accession #	NP_001257620.1
UniProt Primary Accession #	Q9NWM0
UniProt Secondary Accession #	Q5TE26; Q5TE27; Q6UY28; Q8IX00; Q96LC3; Q96LC4; Q96QT3; A2A2P5; A2A2P6; A8BE87; D3DVZ4
UniProt Related Accession #	Q9NWM0
GenBank Nucleotide #	NM_001270691.1
NCBI Official Full Name	spermine oxidase isoform 6
NCBI Official Synonym Full Names	spermine oxidase
NCBI Official Symbol	SMOX
NCBI Official Synonym Symbols	PAO; SMO; PAO1; PAOH; PAO-1; PAOH1; C20orf16
UniProt Protein Name	Spermine oxidase
UniProt Synonym Protein Names	Polyamine oxidase 1
Protein Family	Spermine oxidase

UniProt Gene Name	SMOX
UniProt Synonym Gene Names	C20orf16; SMO; PAO-1; PAOh1
UniProt Entry Name	SMOX_HUMAN
NCBI Protein Information	spermine oxidase; polyamine oxidase 1; flavin containing amine oxidase; flavin-containing spermine oxidase; putative cyclin G1 interacting protein
NCBI Summary for SM	Polyamines are ubiquitous polycationic alkylamines which include spermine, spermidine, putrescine, and agmatine. These molecules participate in a broad range of cellular functions which include cell cycle modulation, scavenging reactive oxygen species, and the control of gene expression. These molecules also play important roles in neurotransmission through their regulation of cell-surface receptor activity, involvement in intracellular signalling pathways, and their putative roles as neurotransmitters. This gene encodes an FAD-containing enzyme that catalyzes the oxidation of spermine to spermadine and secondarily produces hydrogen peroxide. Multiple transcript variants encoding different isoenzymes have been identified for this gene, some of which have failed to demonstrate significant oxidase activity on natural polyamine substrates. The characterized isoenzymes have distinctive biochemical characteristics and substrate specificities, suggesting the existence of additional levels of complexity in polyamine catabolism. [provided by RefSeq, Jul 2012]
UniProt Comments for SM	SMOX: Flavoenzyme which catalyzes the oxidation of spermine to spermidine. Can also use N(1)-acetylspermine and spermidine as substrates, with different affinity depending on the isoform (isozyme) and on the experimental conditions. Plays an important role in the regulation of polyamine intracellular concentration and has the potential to act as a determinant of cellular sensitivity to the antitumor polyamine analogs. May contribute to beta-alanine production via aldehyde dehydrogenase conversion of 3-amino-propanal. Belongs to the flavin monoamine oxidase family. 6 isoforms of the human protein are produced by alternative splicing. Protein type: EC 1.5.3.16; Oxidoreductase Chromosomal Location of Human Ortholog: 20p13 Cellular Component: cytoplasm; cytosol; nucleus Molecular Function: polyamine oxidase activity Biological Process: spermine catabolic process; polyamine biosynthetic process; xenobiotic metabolic process; polyamine catabolic process; polyamine metabolic process
Research Articles on SM	**1.** Tat was found to induce reactive oxygen species production and to affect cell viability in SH-SY5Y cells, these effects being mediated by spermine oxidase (SMO)
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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