

Recombinant Human SMOX Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. SMOX-6015H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	SMOX MS Standard C13 and N15-labeled recombinant protein (NP_787034) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.
Species	Human
Source	HEK293
Description	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.
Molecular Mass	56.1 kDa

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AA Sequence

MQSCCESSGDSADDPLSRGLRRRGQPRVVVIGAGLAGLAAAKALLEQGFTDVTVLEA
 SSHIGGRVQSVKLGHATFELGATWIHGSHGNPIYHLAEANGLLEETTDGERSVGRIS
 LYSKNGVACYLTNHGRRIPKDVVEEFSDLYNEVYNLTQEFFRHDKPVNAESQNSVG
 VFTREEVRNRIRNDPDDPEATKRLKLAMIQQYLKVESCESSHSMDEVSLSAFGEW
 TEIPGAHHIIPSGFMRVVELLAEGIPAHVIQLGKPVRCIHWDQASARPRGPEIEPRGVL
 KRQYTSFFRPGLPTEKVAAIHRLGIGTTDKIFLEFEEFPWGPECNSLQFVWEDEAES
 HTLTYPPELWYRKICGFDVLYPPERYPYGHVLSGWICGEEALVMEKCDDEAVAEICTEM
 LRQFTGNPNIPKPRRILRSWGSNPYFRGSYSYTQVGSSGADVEKLAKPLPYTESS
 KTAPMQVLFSGEATHRKYYSTTHGALLSGQREAAarliemyrdlfqqgttrtrpleq
 KLISEEDLAANDILDYKDDDDKV

Purity

> 80% as determined by SDS-PAGE and Coomassie blue staining

Stability

Stable for 3 months from receipt of products under proper storage and handling conditions.

Storage

Store at -80 centigrade. Avoid repeated freeze-thaw cycles.

Concentration

50 µg/mL as determined by BCA

Storage Buffer

100 mM glycine, 25 mM Tris-HCl, pH 7.3.

GENE INFORMATION

Gene Name

SMOX spermine oxidase [Homo sapiens (human)]

Official Symbol

SMOX

Synonyms

SMOX; spermine oxidase; PAO; SMO; PAO1; PAOH; PAO-1; PAOH1; C20orf16l;
 spermine oxidase; flavin containing amine oxidase; flavin-containing spermine
 oxidase; polyamine oxidase 1; putative cyclin G1 interacting protein; EC 1.5.3.16

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Gene ID	54498
mRNA Refseq	NM_175840
Protein Refseq	NP_787034
MIM	615854
UniProt ID	Q9NWM0
SDS-PAGE	