

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 KTAPMQVLFSGEATHRKYYSTTHGALLSGQREARLIEMYRDLFQQGTTTRTRPLEQ 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

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