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SMOX Rabbit Polyclonal Antibody

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Catalog # AP93443

Product Information

Application	WB
Primary Accession	Q9NWM0
Reactivity	Human, Mouse
Host	Polyclonal, Rabbit,IgG
Clonality	Polyclonal
Calculated MW	61819

Additional Information

Gene ID	54498
Other Names	Spermine oxidase, 1.5.3.16, Polyamine oxidase 1, PAO-1, PAOh1, SMOX, C20orf16, SMO
Dilution	WB~~1:1000
Storage Conditions	-20℃

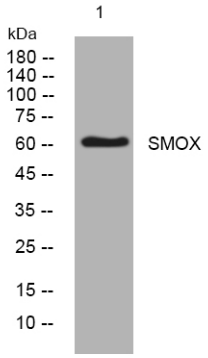
Protein Information

Name	SMOX
Synonyms	C20orf16, SMO
Function	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.
Cellular Location	[Isoform 1]: Cytoplasm. Nucleus. [Isoform 6]: Cytoplasm. Nucleus.
Tissue Location	Widely expressed. Expressed in human tumor cell lines. Isoform 4 is only found in an embryonal kidney cell line

Background

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],

Images



Western blot analysis of lysates from 3T3 cells, primary antibody was diluted at 1:1000, 4°over night