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AOX1 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6700c

Product Information

Application	FC, WB, E
Primary Accession	Q06278
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB19711
Calculated MW	147918
Antigen Region	698-726

Additional Information

Gene ID	316
Other Names	Aldehyde oxidase, Aldehyde oxidase 1, Azaheterocycle hydroxylase, 1173-, AOX1, AO
Target/Specificity	This AOX1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 698-726 amino acids from the Central region of human AOX1.
Dilution	FC~~1:10~50 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	AOX1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	AOX1 (HGNC:553)
Synonyms	AO
Function	Oxidase with broad substrate specificity, oxidizing aromatic azaheterocycles, such as N1-methylnicotinamide, N-methylphthalazinium and

phthalazine, as well as aldehydes, such as benzaldehyde, retinal, pyridoxal, and vanillin. Plays a key role in the metabolism of xenobiotics and drugs containing aromatic azaheterocyclic substituents. Participates in the bioactivation of prodrugs such as famciclovir, catalyzing the oxidation step from 6-deoxypenciclovir to penciclovir, which is a potent antiviral agent. Is probably involved in the regulation of reactive oxygen species homeostasis. May be a prominent source of superoxide generation via the one-electron reduction of molecular oxygen. May also catalyze nitric oxide (NO) production via the reduction of nitrite to NO with NADH or aldehyde as electron donor. May play a role in adipogenesis.

Cellular Location Cytoplasm

Tissue Location Abundant in liver, expressed in adipose tissue and at lower levels in lung, skeletal muscle, pancreas. In contrast to mice, no significant gender difference in AOX1 expression level (at protein level).

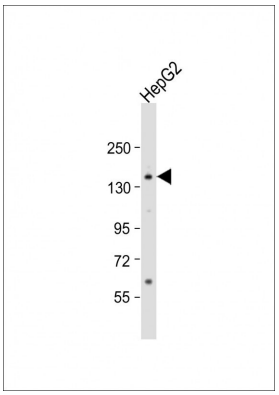
Background

AOX1 catalyzes: An aldehyde + H2O + O2 = a carboxylic acid + H2O2.

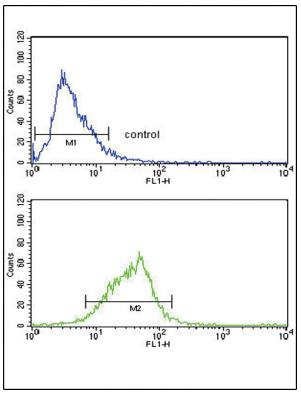
References

Wright,R.M., Proc. Natl. Acad. Sci. U.S.A. 90 (22), 10690-10694 (1993)

Images



Anti-AOX1 Antibody (Center) at 1:1000 dilution + HepG2 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 148 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



AOX1 Antibody (Center) (Cat.#AP6700c) flow cytometry analysis of HepG2 cells (bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.