



Anti-human Aldehyde Oxidase 1/AOX1 Antibody

ORDERING INFORMATION

Catalog Number: AF5928

Lot Number: CDHJ01

Size: 100 µg

Formulation: 0.2 µm filtered solution in PBS with 5% trehalose

Storage: -20° C

Reconstitution: sterile PBS

Specificity: human AOX1

Immunogen: *E. coli*-derived rhAOX1 (aa 302 - 531)

Ig Type: goat IgG

Applications: Western blot
Direct ELISA

Background

AOX1 (Aldehyde oxidase 1; also AO and initially termed xanthine dehydrogenase/oxidase) is a 145 - 150 kDa member of the large molybdo-flavo family of enzymes. It is a homodimer widely expressed in cells such as hepatocytes, bronchial and intestinal epithelium and adrenal cortex. It is suggested to oxidize cyclic aldehydes to carboxylic acids and likely converts retinal to retinoic acid, gentistate aldehyde to gentisate and methylmalonate semialdehyde into methylmalonate. Human AOX1 is 1338 amino acids (aa) in length. It contains a 25 kDa N-terminal region that possesses two Fe/S redox centers (aa 5 - 162), a 40 kDa flavin-containing domain (aa 236 - 421), and an 85 kDa C-terminal region that contains a molybdenum cofactor and substrate-binding segment (aa 711 - 1245). One isoform shows a two aa substitution for aa 354 - 356. Over aa 302 - 531, human AOX1 shares 82% aa identity with mouse AOX1.

Preparation

Produced in goats immunized with purified, *E. coli*-derived, recombinant human Aldehyde Oxidase 1 (rhAOX1; aa 302 - 531; Accession # Q06278). Human AOX1 specific IgG was purified by human AOX1 affinity chromatography.

Formulation

Lyophilized from a 0.2 µm filtered solution in phosphate-buffered saline (PBS) with 5% trehalose.

Reconstitution

Reconstitute with sterile PBS. If 0.5 mL of PBS is used, the antibody concentration will be 0.2 mg/mL.

Storage

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C in a manual defrost freezer for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

Specificity

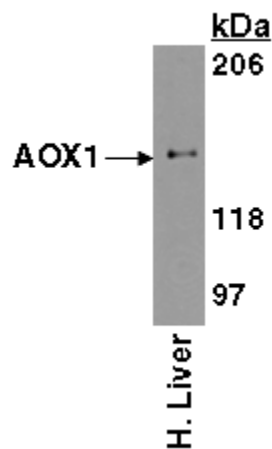
This antibody has been selected for its ability to recognize human AOX1 in direct ELISAs and Western blots.

Applications

Western blot - An antibody concentration of 1.0 µg/mL is recommended.

Direct ELISA - This antibody can be used at 0.5 - 1.0 µg/mL with the appropriate secondary reagents to detect human AOX1. The detection limit for rhAOX1 is approximately 2.5 ng/well.

Optimal dilutions should be determined by each laboratory for each application.



Detection of AOX1 with AF5928.

Tissue lysates were resolved by SDS-PAGE, transferred to an Immobilon-P membrane and immunoblotted with 1.0 µg/mL goat anti-hAOX1.

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