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# Product Information

**Anti-AOX1 antibody, Mouse monoclonal**
clone AO15, purified from hybridoma cell culture

Catalog Number **SAB4200562**

## Product Description

Anti-AOX1 (mouse IgG1 isotype) is derived from the hybridoma AO15 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a synthetic peptide corresponding to an internal sequence of human AOX1 (GeneID: 316). The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2). The antibody is purified from culture supernatant of hybridoma cells grown in a bioreactor.

Anti-AOX1 recognizes human AOX1. The product may be used in several immunochemical techniques including immunoblotting (~ 148 kDa).
Staining of the AOX1 band in immunoblotting is specifically inhibited by the immunizing protein.

Aldehyde oxidases (AOXs) are molybdo-flavoenzymes. Humans and higher primates have a single functional *AOX1* gene, while rodents are endowed with four *AOX*s. Along with the endoplasmic cytochrome P450 system (CYP450), cytoplasmic AOX1 is the major enzyme involved in various metabolic pathways, including drug metabolism and generation of reactive oxygen species and in the hepatic phase I metabolism of numerous xenobiotics.[1] Reduced AOX1 protein expression in chronic pancreatitis and an absence of AOX1 protein expression in pancreatic cancer have been reported.[2] In addition, decreased AOX1 protein expression was detected in hepatocellular carcinoma and this deregulation of AOX1 expression was associated with tumor stage and metastatic status.[3] Furthermore, aberrant DNA hypermethylation of the *AOX1* promoter region was identified in colon cancer and prostate cancer, suggesting it as a promising biomarker for prostate cancer diagnosis.[4]

## Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~ 1.0 mg/mL

## Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

## Storage/Stability

For extended storage, freeze at −20 °C in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

## Product Profile

Immunoblotting: a working concentration of 1.0-2.0 μg/mL is recommended using extracts of HepG2 cells.

**Note**: In order to obtain the best results using various techniques and preparations, we recommend determining optimal working dilutions by titration.

## References

1. Garattini, E., and Terao, M., *Expert. Opin. Drug Metab. Toxicol*., **8**, 487-503 (2012).
2. Pryde, D.C., et al., *J. Med. Chem*., **53**, 8441-8469 (2010).
3. Sigruener, A., et al., *Herm. Metab. Res*., **39**, 782-789 (2007).
4. Kim, J.W., et al., *PloS One,* **7**, e48455 (2012).

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