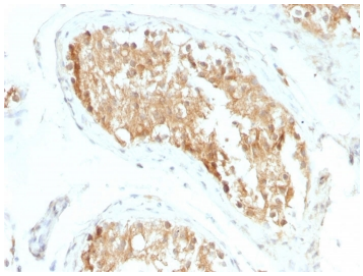
ALDH1A1 Antibody ALDH1A1/1381 / Gastric and Hepatic Detoxification Marker [clone ALDH1A1/1381] (V7764)

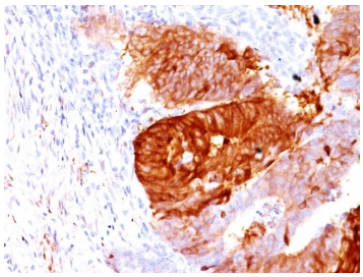
Catalog No.	Formulation	Size
V7764-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7764-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7764SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

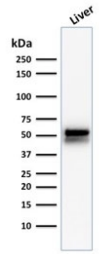
Availability	1-3 business days
Species Reactivity	Human, Rat
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	ALDH1A1/1381
Purity	Protein G affinity chromatography
UniProt	P00352
Localization	Cytoplasmic
Applications	Western blot: 2-4ug/ml Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This ALDH1A1 Antibody ALDH1A1/1381 / Gastric and Hepatic Detoxification Marker is available for research use only.



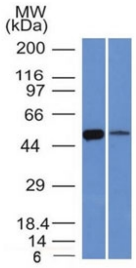
ALDH1A1 Antibody ALDH1A1/1381 Testicular Carcinoma IHC. Immunohistochemistry staining of FFPE human testicular carcinoma with ALDH1A1 antibody (clone ALDH1A1/1381). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min and allow to cool before testing.



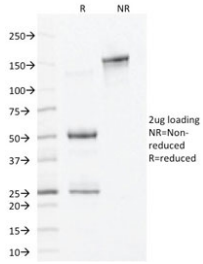
ALDH1A1 Antibody ALDH1A1/1381 Colon Carcinoma IHC. Immunohistochemistry staining of FFPE human colon carcinoma with ALDH1A1 antibody (clone ALDH1A1/1381). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min and allow to cool before testing.



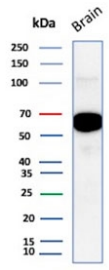
ALDH1A1 Antibody ALDH1A1/1381 Liver WB. Western blot analysis of human liver lysate using ALDH1A1 Antibody / Gastric and Hepatic Detoxification Marker clone ALDH1A1/1381. A strong band is detected at approximately 55 kDa, consistent with the predicted molecular weight of Aldehyde dehydrogenase 1 family member A1 / ALDH1A1. The prominent hepatic signal aligns with the established role of ALDH1A1 in aldehyde detoxification, retinoic acid biosynthesis, and intermediary metabolic pathways within hepatocytes.



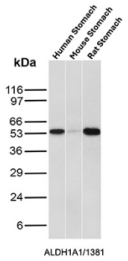
ALDH1A1 Antibody ALDH1A1/1381 K562 and Lung WB. Western blot testing of human K562 (left) and lung (right) lysate with ALDH1A1 antibody (clone ALDH1A1/1381). Expected molecular weight ~55 kDa.



SDS-PAGE analysis of purified, BSA-free ALDH1A1 antibody (clone ALDH1A1/1381) as confirmation of integrity and purity.



ALDH1A1 Antibody Brain WB. Western blot testing of human brain tissue lysate with ALDH1A1 antibody (clone ALDH1A1/1381). Expected molecular weight ~55 kDa.



ALDH1A1 Antibody Stomach Tissue WB. Western blot analysis of human stomach, mouse stomach, and rat stomach tissue lysates using ALDH1A1 Antibody / Gastric and Hepatic Detoxification Marker clone ALDH1A1/1381. A distinct band is detected at approximately 55 kDa in human and rat stomach samples, consistent with the predicted molecular weight of Aldehyde dehydrogenase 1 family member A1 / ALDH1A1. The observed gastric expression pattern aligns with the established role of ALDH1A1 in epithelial aldehyde detoxification and retinoic acid metabolism within gastrointestinal tissues, while mouse stomach lysate shows comparatively low detectable signal under these experimental conditions.

Description

Aldehyde dehydrogenase 1 family member A1 (ALDH1A1) is a cytoplasmic aldehyde-metabolizing enzyme involved in retinoic acid biosynthesis, oxidative stress protection, and cellular detoxification pathways. ALDH1A1 Antibody ALDH1A1/1381 / Gastric and Hepatic Detoxification Marker (clone ALDH1A1/1381) is designed for the detection of ALDH1A1 expression in epithelial and metabolically active tissues including stomach and liver. ALDH1A1 is highly expressed in hepatocytes and gastrointestinal epithelial cells where it contributes to protection against reactive aldehydes generated during normal metabolism and inflammatory stress.

ALDH1A1 antibody, also referred to as Aldehyde dehydrogenase 1 antibody or Retinal dehydrogenase 1 antibody in the literature, recognizes a member of the aldehyde dehydrogenase superfamily that catalyzes conversion of retinaldehyde to retinoic acid. This metabolic pathway influences cellular differentiation, epithelial maintenance, and transcriptional signaling mediated through retinoid-responsive nuclear receptors. ALDH1A1 localizes predominantly to the cytoplasm and is especially abundant in tissues involved in detoxification and intermediary metabolism.

Clone ALDH1A1/1381 antibody is particularly useful for evaluating epithelial and hepatic ALDH1A1 expression patterns by western blot and immunohistochemistry. Western blot analysis demonstrates a prominent band near the expected molecular weight in human and rat stomach tissue lysates, consistent with the known gastrointestinal distribution of ALDH1A1. Strong hepatic expression is likewise consistent with the enzyme's established role in aldehyde metabolism, xenobiotic detoxification, and oxidative stress defense within hepatocytes.

ALDH1A1 has also attracted significant interest as a marker associated with stem-like cellular populations in cancer biology. Increased expression has been linked to tumor progression, chemoresistance, and cancer stem cell phenotypes in multiple carcinomas. In tissue-based studies, ALDH1A1 staining patterns may help characterize epithelial differentiation states and metabolically active tumor compartments. Because of these features, ALDH1A1 remains an important target in oncology, toxicology, and regenerative medicine research.

This mouse monoclonal ALDH1A1 antibody clone ALDH1A1/1381 supports research applications involving gastric biology, liver metabolism, epithelial differentiation, and aldehyde detoxification pathways. Human and rat tissue reactivity makes the antibody suitable for comparative gastrointestinal and hepatic expression studies in translational research settings.

For broader multi-application ALDH1A1 detection including IF and flow cytometry workflows, see our ALDH1A1 Antibody / Cancer Stem Cell and Retinoic Acid Metabolism Marker page.

Application Notes

Optimal dilution of the ALDH1A1 Antibody ALDH1A1/1381 / Gastric and Hepatic Detoxification Marker should be determined by the researcher.

Immunogen

A human recombinant partial ALDH1A1 protein (AA 315-434) was used as the immunogen for this ALDH1 antibody.

Storage

Store the ALDH1A1 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

ALDH1A1 monoclonal antibody, Aldehyde dehydrogenase 1 antibody, Retinal dehydrogenase 1 antibody, ALDH1A1 IHC antibody, Hepatic detoxification marker antibody

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