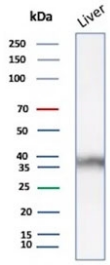
AKR1C1 Antibody / Steroid Metabolism Enzyme Antibody [clone AKR1C1/9063] (V5582)

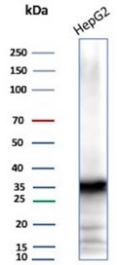
Catalog No.	Formulation	Size
V5582-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5582-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5582SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

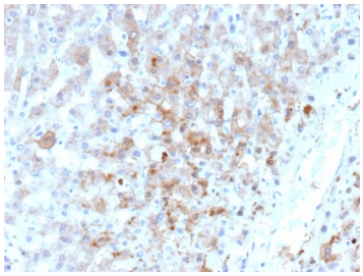
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat, Hamster, Guinea pig
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a, kappa
Clone Name	AKR1C1/9063
Purity	Protein A/G affinity
UniProt	Q04828
Localization	Cytoplasm
Applications	Immunohistochemistry (FFPE): 1-2ug/ml Western blot: 2-4ug/ml (Human/Mouse/Rat/Hamster/Guinea pig)
Limitations	This AKR1C1 Antibody / Steroid Metabolism Enzyme Antibody is available for research use only.



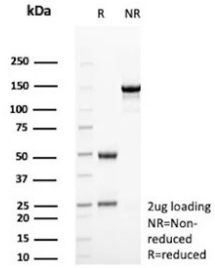
AKR1C1 Antibody Liver Tissue WB. Western blot analysis of human liver tissue lysate using AKR1C1 Antibody (clone AKR1C1/9063) detects a band at approximately 37 kDa, consistent with the predicted molecular weight of AKR1C1 / Aldo-keto reductase family 1 member C1. This band aligns with the expected size of the cytosolic enzyme and supports detection of AKR1C1 in hepatic tissue, where it functions in steroid metabolism and detoxification pathways.



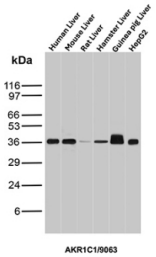
AKR1C1 Antibody HepG2 Cell WB. Western blot analysis of human HepG2 cell lysate using AKR1C1 Antibody (clone AKR1C1/9063) detects a prominent band at approximately 37 kDa, consistent with the predicted molecular weight of AKR1C1 / Aldo-keto reductase family 1 member C1. The strong signal in this liver-derived cell line supports detection of AKR1C1 in hepatocyte-like models, aligning with its role in steroid metabolism and detoxification pathways.



AKR1C1 Antibody Hepatocellular Carcinoma IHC. Immunohistochemistry analysis of FFPE human hepatocellular carcinoma tissue using AKR1C1 Antibody (clone AKR1C1/9063) shows cytoplasmic staining in tumor cells, consistent with AKR1C1 / Aldo-keto reductase family 1 member C1 localization as a cytosolic enzyme. The staining is heterogeneous across the tumor field, with variable intensity reflecting differences in metabolic activity among tumor cells. Surrounding non-tumor regions display comparatively lower signal. Hematoxylin counterstain provides nuclear contrast and tissue architecture. HIER: boil FFPE tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 20 min and allow to cool before testing.



SDS-PAGE analysis of purified, BSA-free ARK1C1 antibody (clone AKR1C1/9063) as confirmation of integrity and purity.



AKR1C1 Antibody Multi-Species Liver WB. Western blot analysis of (1) human liver, (2) mouse liver, (3) rat liver, (4) hamster liver, (5) guinea pig liver, and (6) HepG2 cell lysates using AKR1C1 Antibody (clone AKR1C1/9063) detects a band at approximately 37 kDa, consistent with the predicted molecular weight of AKR1C1 / Aldo-keto reductase family 1 member C1. Band intensity varies across species, with stronger signal observed in guinea pig liver and HepG2 cells, reflecting differences in expression level or antibody affinity. The overall pattern supports detection of AKR1C1 in hepatic tissues and liver-derived cell models involved in steroid metabolism and detoxification pathways.

Description

Aldo-keto reductase family 1 member C1 (AKR1C1), also known as dihydrodiol dehydrogenase 1, is a cytosolic enzyme that plays a central role in steroid metabolism and detoxification pathways. The AKR1C1 Antibody / Steroid Metabolism Enzyme Antibody is designed to detect this enzyme in biological systems where hormone regulation and metabolic processing are critical. AKR1C1 is encoded on chromosome 10p15 and belongs to the aldo-keto reductase superfamily, which catalyzes the NADPH-dependent reduction of aldehydes and ketones.

The AKR1C1 antibody, also referred to as Dihydrodiol dehydrogenase 1 antibody and AKR1C1 enzyme antibody in the literature, recognizes a protein that is predominantly localized in the cytoplasm. AKR1C1 is involved in the metabolism of steroid hormones, including progesterone, androgens, and estrogens, where it regulates hormone availability and activity. In addition to steroid metabolism, AKR1C1 contributes to the detoxification of xenobiotics and reactive aldehydes generated during oxidative stress.

This AKR1C1 Antibody / Steroid Metabolism Enzyme Antibody is uniquely positioned for studies of metabolic regulation and hormone-associated pathways. In immunohistochemistry, AKR1C1 is typically observed as cytoplasmic staining in hepatocytes and epithelial cells, reflecting its role in intracellular metabolic processes. In western blot analysis, AKR1C1

is detected as a band corresponding to its predicted molecular weight, supporting analysis of expression across tissues and experimental models.

AKR1C1 is highly expressed in liver tissue, where it contributes to the metabolism of endogenous compounds and detoxification of environmental chemicals. It is also expressed in hormone-responsive tissues and has been implicated in cancer biology, where altered steroid metabolism can influence tumor growth and progression. Changes in AKR1C1 expression have been associated with drug resistance and metabolic adaptation in cancer cells.

The mouse monoclonal clone AKR1C1/9063 provides consistent detection of AKR1C1 across multiple species and tissue types. This AKR1C1 Antibody / Steroid Metabolism Enzyme Antibody is suitable for detecting AKR1C1 expression in research applications focused on metabolic pathways, hormone regulation, and detoxification processes. Its performance supports detailed evaluation of enzyme expression in both normal physiology and disease-associated metabolic changes.

This antibody supports investigation of steroid metabolism, detoxification pathways, and disease-associated changes in AKR1C1 expression.

This antibody is part of a broader antibody panel offered by NSJ Bioreagents.

Application Notes

Optimal dilution of the AKR1C1 Antibody / Steroid Metabolism Enzyme Antibody should be determined by the researcher.

Immunogen

Recombinant human full-length AKR1C1 protein was used as the immunogen for the ARK1C1 antibody.

Storage

Aliquot the ARK1C1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

AKR1C1 antibody, Aldo-keto reductase family 1 member C1 antibody, Dihydrodiol dehydrogenase 1 antibody, AKR1C1 enzyme antibody, Steroid metabolism enzyme antibody

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