

Anti-AKR7A2 Antibody [C10-D5]

M1505-12



Product Type:	Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human, Zebrafish
Applications:	WB, IF-Cell, IHC-P
Molecular Wt:	Predicted band size: 40 kDa
Clone number:	C10-D5

Description: Aflatoxin B1 aldehyde reductase member 2 is an enzyme that in humans is encoded by the AKR7A2 gene. It catalyzes the NADPH-dependent reduction of succinic semialdehyde to gamma-hydroxybutyrate and may have an important role in producing the neuromodulator gamma-hydroxybutyrate (GHB). AKR7A2 has broad substrate specificity and NADPH-dependent aldehyde reductase activity towards 2-carboxybenzaldehyde, 2-nitrobenzaldehyde and pyridine-2-aldehyde (in vitro). AKR7A2 can reduce 1,2-naphthoquinone and 9,10-phenanthrenequinone (in vitro) and reduce the dialdehyde protein-binding form of aflatoxin B1 (AFB1) to the non-binding AFB1 dialcohol. It may be involved in protection of liver against the toxic and carcinogenic effects of AFB1, a potent hepatocarcinogen.

Immunogen: Synthetic peptide within Human AKR7A2 aa 97-146 / 359.

Positive control: HepG2, human spermatozoa

Subcellular location: Cytoplasm, Golgi apparatus

Database links: SwissProt: O43488 Human

Recommended Dilutions:

WB	1:1,000-1:2,000
IF-Cell	1:200

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

Purity: Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn

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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

Images

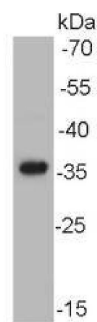


Fig1: Western blot analysis of AKR7A2 on human spermatozoa lysate using anti-AKR7A2 antibody at 1/1,000 dilution.

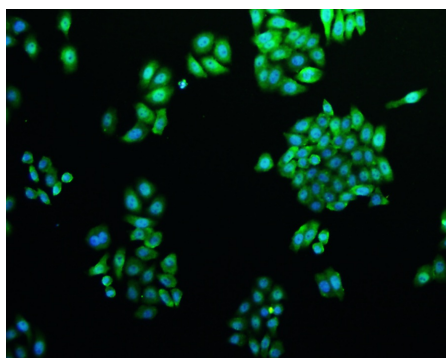


Fig2: ICC staining AKR7A2 in HepG2 cells (green). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

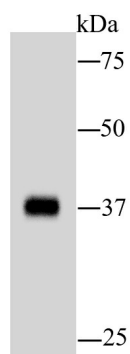


Fig3: Western blot analysis of AKR7A2 on hybrid fish (crucian-carp) liver tissue lysate using anti-AKR7A2 antibody at 1/1,000 dilution.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. "Novel homodimeric and heterodimeric rat gamma-hydroxybutyrate synthases that associate with the Golgi apparatus define a distinct subclass of aldo-keto reductase 7 family proteins." Kelly V.P., Sherratt P.J., Crouch D.H., Hayes J.D. Biochem. J. 366:847-861(2002)
2. "Synthesis and catabolism of gamma-hydroxybutyrate in SH-SY5Y human neuroblastoma cells: role of the aldo-keto reductase AKR7A2." Lyon R.C., Johnston S.M., Watson D.G., McGarvie G., Ellis E.M. J. Biol. Chem. 282:25986-25992(2007) "Genetic variation of aflatoxin B1 aldehyde reductase genes (AFAR) in human tumour cells." Praml C., Schulz W., Claas A., Mollenhauer J., Poustka A., Ackermann R., Schwab M., Henrich K.-O. Cancer Lett. 272:160-166(2008)

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