10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

AKR7A2 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7186a

Product Information

Application	WB, E
Primary Accession	O43488
Other Accession	Q8NHP1, Q8CG45
Reactivity	Human, Mouse
Predicted	Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB17972
Calculated MW	39589
Antigen Region	101-129

Additional Information

Gene ID	8574
Other Names	Aflatoxin B1 aldehyde reductase member 2, 111n11, AFB1 aldehyde reductase 1, AFB1-AR 1, Aldoketoreductase 7, Succinic semialdehyde reductase, SSA reductase, AKR7A2, AFAR, AFAR1, AKR7
Target/Specificity	This AKR7A2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 101-129 amino acids from the N-terminal region of human AKR7A2.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	AKR7A2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	AKR7A2
Synonyms	AFAR, AFAR1, AKR7

Function	Catalyzes the NADPH-dependent reduction of succinic semialdehyde to gamma-hydroxybutyrate. May have an important role in producing the neuromodulator gamma-hydroxybutyrate (GHB). Has broad substrate specificity. Has NADPH-dependent aldehyde reductase activity towards 2-carboxybenzaldehyde, 2-nitrobenzaldehyde and pyridine-2- aldehyde (in vitro). Can reduce 1,2-naphthoquinone and 9,10- phenanthrenequinone (in vitro). Can reduce the dialdehyde protein- binding form of aflatoxin B1 (AFB1) to the non-binding AFB1 dialcohol. May be involved in protection of liver against the toxic and carcinogenic effects of AFB1, a potent hepatocarcinogen.
Cellular Location	Mitochondrion. Golgi apparatus {ECO:0000250|UniProtKB:Q8CG45}. Cytoplasm
Tissue Location	Detected in brain, liver, small intestine and testis, and at lower levels in heart, prostate, skeletal muscle and spleen. Detected in kidney proximal and distal tubules, endothelial cells lining the Bowman's capsules and some cysts. Detected at low levels in lung and pancreas (at protein level). Widely expressed

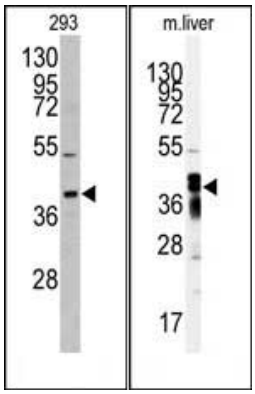
Background

AKR7A2 is aldo-keto reductases, which are involved in the detoxification of aldehydes and ketones.

References

Ireland L.S., Harrison D.J.Biochem. J. 332:21-34(1998)
Kelly V.P., Sherratt P.J.Biochem. J. 366:847-861(2002)

Images



Western blot analysis of anti-AKR7A2 antibody (N-term) (Cat. #AP7186a) in 293 cell line lysates (35ug/lane). AKR7A2 (arrow) was detected using the purified Pab.
Western blot analysis of anti-AKR7A2 Antibody (N-term) (Cat. #AP7186a) in mouse liver tissue lysates (35ug/lane). AKR7A2 (arrow) was detected using the purified Pab .