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Rabbit Anti-AKR7A2 antibody

SL11706R

Product Name:	AKR7A2
Chinese Name:	醛固酮类还原酶家族7成员A2抗体
Alias:	AFAR; AFAR1; AFB1 aldehyde reductase 1; AFB1 AR1; AFB1-AR 1; AFB1AR1; Aflatoxin aldehyde reductase; Aflatoxin B1 aldehyde reductase member 2; Aflatoxin beta1 aldehyde reductase; Aiar; AKR7; Akr7a2; Aldo keto reductase family 7; Aldo keto reductase family 7 member A2 aflatoxin aldehyde reductase; Aldo keto reductase family 7 member A2; Aldoketoreductase 7; ARK72_HUMAN; SSA reductase; SSA reductase; Succinic semialdehyde reductase.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	40kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human AKR7A2:81-150/359
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	The aldo-keto reductase 7 (AKR7) family includes AKR7A2, AKR7A3 and AKR7A4 in human, AKR7A5 in mouse and AKR7A2 in rat, all of which function in the

	metabolism of aflatoxin B(1) and other dicarbonyl-containing compounds. More specifically, AKR7A proteins are involved in the metabolism of compounds with ketone groups on adjacent carbon atoms in a broad range of tissues, notably the liver. The human AKR7A2 gene maps to human chromosome 1p35-36, a region frequently deleted in sporadic colorectal cancer. The functional significance of this correlation lies in the constitutive expression of AKR7A2 in human liver to eliminate aflatoxin (an environmental carcinogen), thus acting as an endogenous chemo-preventative agent. **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. **Subunit:** Homodimer. **Subcellular Location:** Golgi apparatus. Cytoplasm. **Tissue Specificity:** 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. **Similarity:** Belongs to the aldo/keto reductase 2 family. **SWISS:** O43488 **Gene ID:** 8574 **Database links:** Entrez Gene: 8574 Human Entrez Gene: 110198 Mouse

	Entrez Gene: 171445 Rat Omim: 603418 Human SwissProt: O43488 Human SwissProt: Q8CG76 Mouse SwissProt: Q8CG45 Rat Unigene: 571886 Human Unigene: 8548 Rat **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.