ARG45172
anti-AKR7A2 antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes AKR7A2
Tested Reactivity	Hu, Ms, Rat
Tested Application	FACS, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Target Name	AKR7A2
Species	Human
Immunogen	Recombinant protein containing to human AKR7A2.
Conjugation	Un-conjugated
Alternate Names	Aflatoxin B1 aldehyde reductase member 2; AFB1 aldehyde reductase 1; AFB1-AR 1; Aldoketoreductase 7; Succinic semialdehyde reductase; SSA reductase; AKR7A2; AFAR; AFAR1; AKR7

Application Instructions

Application table

Application	Dilution
FACS	1 - 3 µg/10^6 cells
IHC-P	0.5-1 µg/ml
WB	0.25-0.5 µg/ml

Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
Observed Size	36 kDa

Properties

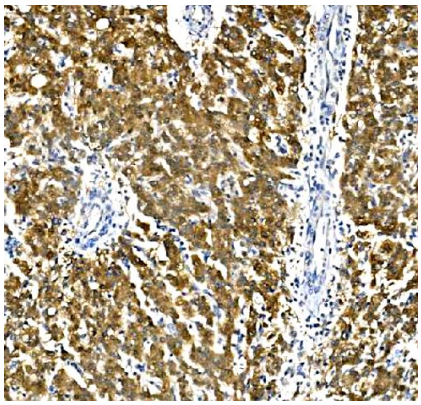
Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	0.2% Na2HPO4, 0.9% NaCl, 0.05% Sodium azide and 4% Trehalose.
Preservative	0.05% Sodium azide
Stabilizer	4% Trehalose
Concentration	0.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

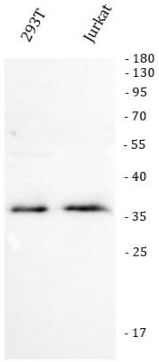
Gene Symbol	AKR7A2
Gene Full Name	aldo-keto reductase family 7 member A2
Background	The protein encoded by this gene belongs to the aldo/keto reductase (AKR) superfamily and AKR7 family, which are involved in the detoxification of aldehydes and ketones. The AKR7 family consists of 3 genes that are present in a cluster on the p arm of chromosome 1. This protein, thought to be localized in the golgi, catalyzes the NADPH-dependent reduction of succinic semialdehyde to the endogenous neuromodulator, gamma-hydroxybutyrate. It may also function as a detoxication enzyme in the reduction of aflatoxin B1 and 2-carboxybenzaldehyde. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Mar 2016]
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.. [UniProt]
Calculated Mw	39 kDa
PTM	Acetylation; Phosphoprotein. [UniProt]
Cellular Localization	Mitochondrion; Golgi apparatus; Cytoplasm. [UniProt]

Images



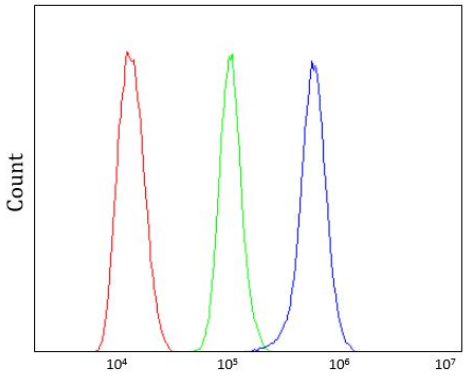
ARG45172 anti-AKR7A2 antibody IHC-P image

Immunohistochemistry: Human liver cancer stained with ARG45172 anti-AKR7A2 antibody at 1 µg/ml dilution.



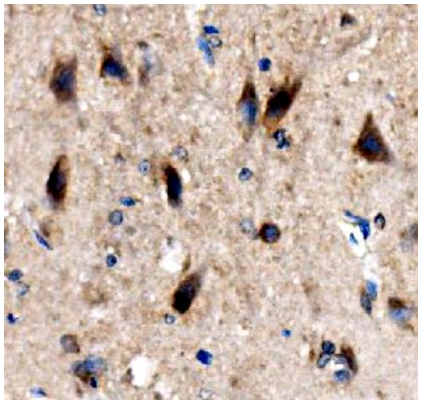
ARG45172 anti-AKR7A2 antibody WB image

Western blot: 293T and Jurkat stained with ARG45172 anti-AKR7A2 antibody at 0.5 µg/ml dilution.



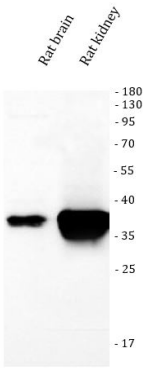
ARG45172 anti-AKR7A2 antibody FACS image

Flow Cytometry: THP-1 stained with ARG45172 anti-AKR7A2 antibody at 1 µg/10^6 cells dilution.



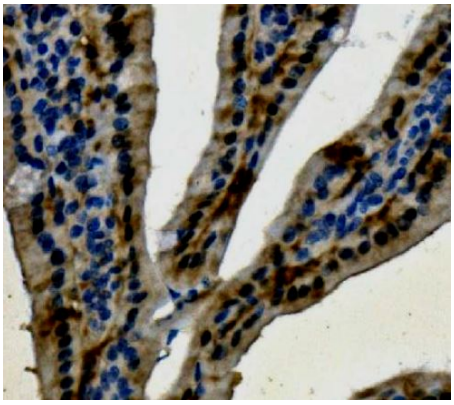
ARG45172 anti-AKR7A2 antibody IHC-P image

Immunohistochemistry: Rat brain stained with ARG45172 anti-AKR7A2 antibody at 1 µg/ml dilution.



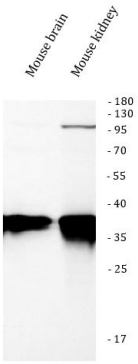
ARG45172 anti-AKR7A2 antibody WB image

Western blot: Rat brain and rat kidney stained with ARG45172 anti-AKR7A2 antibody at 0.5 µg/ml dilution.



ARG45172 anti-AKR7A2 antibody IHC-P image

Immunohistochemistry: Mouse intestine stained with ARG45172 anti-AKR7A2 antibody at 1 µg/ml dilution.



ARG45172 anti-AKR7A2 antibody WB image

Western blot: Mouse brain and mouse kidney stained with ARG45172 anti-AKR7A2 antibody at 0.5 µg/ml dilution.