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

Anti-AKR1B10 Picoband Antibody
Catalog # ABO10273

Specification

Anti-AKR1B10 Picoband Antibody - Product Information

Application	**WB, IHC-P**
Primary Accession	O60218
Host	**Rabbit**
Reactivity	**Human**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Aldo-keto reductase family 1 member B10(AKR1B10) detection. Tested with WB, IHC-P in Human.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-AKR1B10 Picoband Antibody - Additional Information

Gene ID 57016

Other Names
Aldo-keto reductase family 1 member B10, 1.1.1.-, ARL-1, Aldose reductase-like, Aldose reductase-related protein, ARP, hARP, Small intestine reductase, SI reductase, AKR1B10, AKR1B11

Calculated MW
36020 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat

Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization
Lysosome . Secreted . Secreted through a lysosome-mediated non-classical pathway.

Tissue Specificity
Found in many tissues. Highly expressed in small intestine, colon and adrenal gland.

Protein Name
Aldo-keto reductase family 1 member B10

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the C-terminus of human AKR1B10 (285-316aa EMATILSFNRNWRACNVLQSSHLEDYPFNAEY).

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Anti-AKR1B10 Picoband Antibody - Protein Information

Name AKR1B10

Synonyms AKR1B11

Function
Catalyzes the NADPH-dependent reduction of a wide variety of carbonyl-containing compounds to their corresponding alcohols (PubMed:12732097, PubMed:18087047, PubMed:19013440, PubMed:19563777, PubMed:9565553). Displays strong enzymatic activity toward all-trans- retinal, 9-cis-retinal, and 13-cis-retinal (PubMed:12732097, PubMed:18087047). Plays a critical role in detoxifying dietary and lipid-derived unsaturated carbonyls, such as crotonaldehyde, 4- hydroxynonenal, trans-2-hexenal, trans-2,4-hexadienal and their glutathione-conjugates carbonyls (GS-carbonyls) (PubMed:19013440, PubMed:19563777). Displays no reductase activity towards glucose (PubMed:12732097).

Cellular Location
Lysosome. Secreted. Note=Secreted through a lysosome- mediated non-classical pathway

Tissue Location
Found in many tissues. Highly expressed in small intestine, colon and adrenal gland.

Anti-AKR1B10 Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

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

Anti-AKR1B10 Picoband Antibody - Images

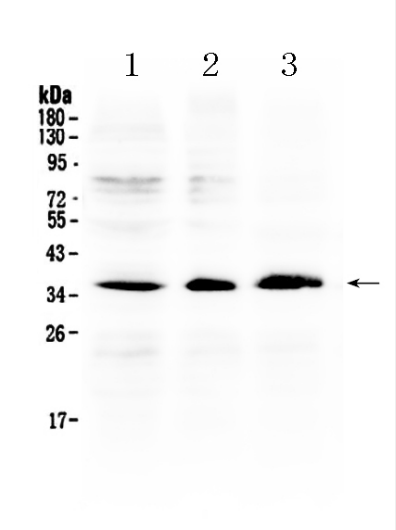

Figure 1. Western blot analysis of AKR1B10 using anti- AKR1B10 antibody (ABO10273). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.Lane 1: HELA whole Cell lysates,Lane 2: COLO320 whole Cell lysates,Lane 3: SW620 whole Cell lysates,After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti- AKR1B10 antigen affinity purified polyclonal antibody (Catalog # ABO10273) at 0.5 Î¼g/mL overnight at 4Â°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for AKR1B10 at approximately 36KD. The expected band size for AKR1B10 is at 36KD.

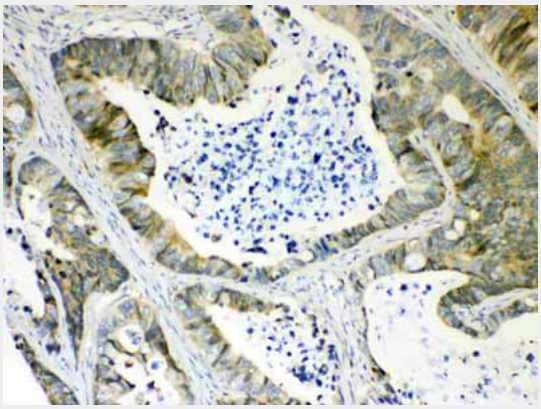

Figure 2. IHC analysis of AKR1B10 using anti- AKR1B10 antibody (ABO10273).AKR1B10 was detected in paraffin-embedded section of human intestinal cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1Î¼g/ml rabbit anti- AKR1B10 Antibody (ABO10273) overnight at 4Â°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37Â°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

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

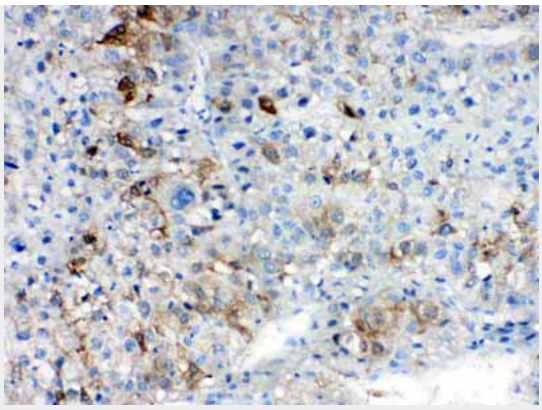

Figure 3. IHC analysis of AKR1B10 using anti- AKR1B10 antibody (ABO10273).AKR1B10 was detected in paraffin-embedded section of human liver cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1Î¼g/ml rabbit anti- AKR1B10 Antibody (ABO10273) overnight at 4Â°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37Â°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

Anti-AKR1B10 Picoband Antibody - Background

Aldo-keto reductase family 1 member B10 is an enzyme that in humans is encoded by the AKR1B10 gene. This gene encodes a member of the aldo/keto reductase superfamily, which consists of more than 40 known enzymes and proteins. This member can efficiently reduce aliphatic and aromatic aldehydes, and it is less active on hexoses. It is highly expressed in adrenal gland, small intestine, and colon, and may play an important role in liver carcinogenesis.