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

AKR1B10 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP58407

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	O60218
Reactivity	Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	36020
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human AKR1B10
Epitope Specificity	8-110/316
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Lysosome. Secreted. Note=Secreted through a lysosome-mediated non-classical pathway.
SIMILARITY	Belongs to the aldo/keto reductase family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	AKR1B10 is also known as aldose reductase-like-1 (ARL-1), small intestine reductase (SI reductase) or aldose reductase-related protein (ARP or hARP). AKR1B10 is found in many tissues but is predominantly expressed in small intestine, colon and adrenal gland. AKR1B10 is an efficient reductase for aliphatic and aromatic aldehydes. It plays a role in steroid metabolism as well as detoxification of aldehydes in digested food, and may be involved in the retinal-retinoic acid signaling pathway. AKR1B10 is prominently overexpressed in non-small cell lung carcinoma and adenocarcinoma. Cigarette smoking is an independent variable responsible for this overexpression. AKR1B10 may play a role regulating cell proliferation and cellular response to carbonyl stress.

Additional Information

Gene ID	57016
Other Names	Aldo-keto reductase family 1 member B10, 1.1.1.300, 1.1.1.54, ARL-1, Aldose reductase-like, Aldose reductase-related protein, ARP, hARP, Small intestine reductase, SI reductase, AKR1B10, AKR1B11
Target/Specificity	Found in many tissues. Highly expressed in small intestine, colon and adrenal gland.
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000

-10000

Format 0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce

Storage Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. 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.

Protein Information

Name AKR1B10

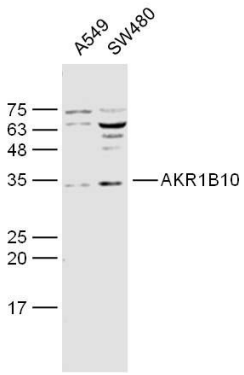
Synonyms AKR1B11

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.

Images



Sample:
A549 Cell Lysate at 40 ug
SW480 Cell Lysate at 40 ug
_x005f Primary: Anti- AKR1B10 (AP58407) at 1/300 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 35 kD
Observed band size: 35 kD