

AKR1B10 Antibody (clone 1A6)
Mouse Monoclonal Antibody
Catalog # ALS13493**Specification****AKR1B10 Antibody (clone 1A6) - Product Information**

Application	WB, IHC-P, IF, E
Primary Accession	O60218
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	36kDa KDa
Dilution	WB~~1:1000 IHC-P~~N/A IF~~1:50~200 E~~N/A

AKR1B10 Antibody (clone 1A6) - 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

Reconstitution & Storage

Store at -20°C. Aliquot to avoid freeze/thaw cycles.

Precautions

AKR1B10 Antibody (clone 1A6) is for research use only and not for use in diagnostic or therapeutic procedures.

AKR1B10 Antibody (clone 1A6) - 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).

target="_blank">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

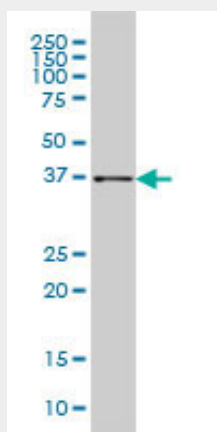
Found in many tissues. Highly expressed in small intestine, colon and adrenal gland.

AKR1B10 Antibody (clone 1A6) - Protocols

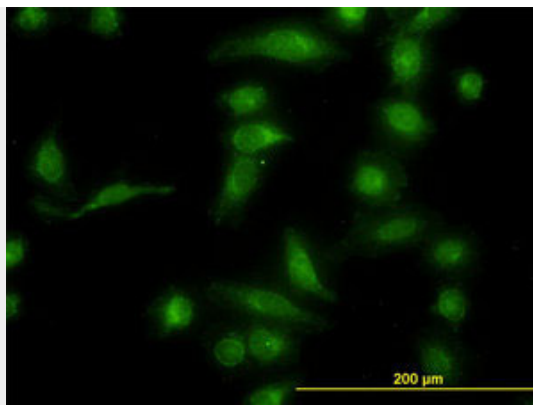
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

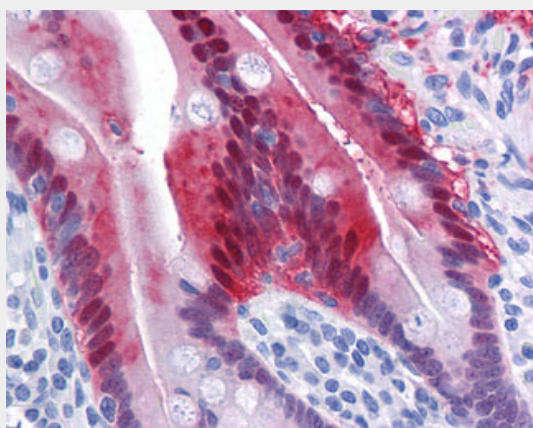
AKR1B10 Antibody (clone 1A6) - Images



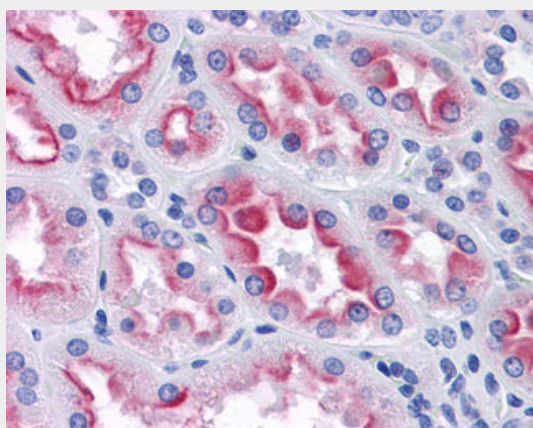
AKR1B10 monoclonal antibody, clone 1A6 Western blot of AKR1B10 expression in HepG2.



Immunofluorescence of monoclonal antibody to AKR1B10 on HeLa cell (antibody concentration 10 ug/ml).



Anti-AKR1B10 antibody IHC of human small intestine.



Anti-AKR1B10 antibody IHC of human kidney.

AKR1B10 Antibody (clone 1A6) - Background

Acts as all-trans-retinaldehyde reductase. Can efficiently reduce aliphatic and aromatic aldehydes, and is less active on hexoses (in vitro). May be responsible for detoxification of reactive aldehydes in the digested food before the nutrients are passed on to other organs.

AKR1B10 Antibody (clone 1A6) - References

Cao D., et al. J. Biol. Chem. 273:11429-11435(1998).
Hyndman D.J., et al. Biochim. Biophys. Acta 1399:198-202(1998).

Heringlake S.,et al.Submitted (JUN-2002) to the EMBL/GenBank/DDBJ databases.
Kalnine N.,et al.Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.
Ebert L.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.