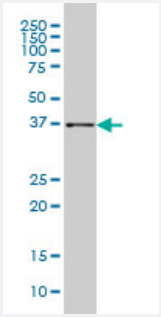
AKR1B10 monoclonal antibody (M01), clone 1A6

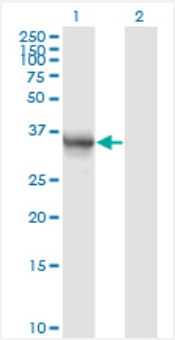
Catalog # H00057016-M01 Size 100 ug

Applications



Western Blot (Cell lysate)

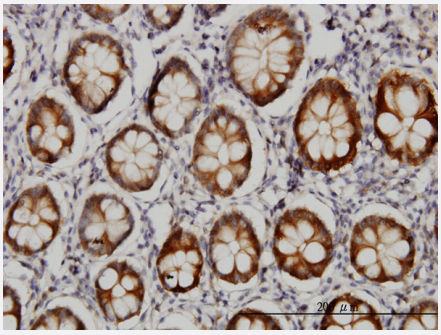
AKR1B10 monoclonal antibody (M01), clone 1A6 Western Blot analysis of AKR1B10 expression in HepG2 (Cat # L019V1).



Western Blot (Transfected lysate)

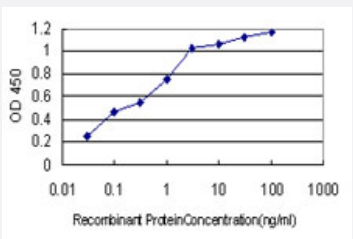
Western Blot analysis of AKR1B10 expression in transfected 293T cell line by AKR1B10 monoclonal antibody (M01), clone 1A6.

Lane 1: AKR1B10 transfected lysate(36 KDa).
Lane 2: Non-transfected lysate.



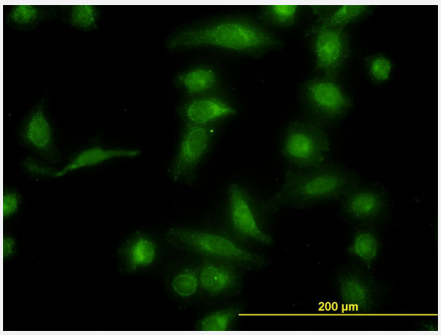
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunoperoxidase of monoclonal antibody to AKR1B10 on formalin-fixed paraffin-embedded human colon. [antibody concentration 3 ug/ml]



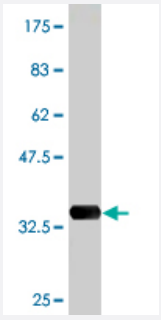
Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged AKR1B10 is approximately 0.03ng/ml as a capture antibody.



Immunofluorescence

Immunofluorescence of monoclonal antibody to AKR1B10 on HeLa cell. [antibody concentration 10 ug/ml]



Western Blot detection against Immunogen (33.22 KDa) .

Specification

Product Description	Mouse monoclonal antibody raised against a partial recombinant AKR1B10.
Immunogen	AKR1B10 (NP_064695, 76 a.a. ~ 143 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Sequence	VSKLWPTFFERPLVRKAFEKTLKDLKLSYLDVYLIHWPQGFKSGDDLFPKDDKGNAIGGKATFLD AWE
Host	Mouse
Reactivity	Human
Interspecies Antigen Sequence	Mouse (82); Rat (81)
Isotype	IgG2a Kappa
Quality Control Testing	Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (33.22 KDa) .
Storage Buffer	In 1x PBS, pH 7.4
Storage Instruction	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Applications

- Western Blot (Cell lysate)

  AKR1B10 monoclonal antibody (M01), clone 1A6 Western Blot analysis of AKR1B10 expression in HepG2 (Cat # L019V1).

  Protocol Download

- Western Blot (Transfected lysate)

  Western Blot analysis of AKR1B10 expression in transfected 293T cell line by AKR1B10 monoclonal antibody (M01), clone 1A6.

  Lane 1: AKR1B10 transfected lysate(36 KDa).
  Lane 2: Non-transfected lysate.

  Protocol Download

- Western Blot (Recombinant protein)

  Protocol Download

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- Sandwich ELISA (Recombinant protein)

  Detection limit for recombinant GST tagged AKR1B10 is approximately 0.03ng/ml as a capture antibody.

  Protocol Download

- ELISA

- Immunofluorescence

  Immunofluorescence of monoclonal antibody to AKR1B10 on HeLa cell. [antibody concentration 10 ug/ml]

Gene Info — AKR1B10

Entrez GeneID	57016
GeneBank Accession#	NM_020299

Protein Accession#	NP_064695
Gene Name	AKR1B10
Gene Alias	AKR1B11, AKR1B12, ALDRLn, ARL-1, ARL1, HIS, HSI, MGC14103
Gene Description	aldo-keto reductase family 1, member B10 (aldose reductase)
Omim ID	604707
Gene Ontology	Hyperlink
Gene Summary	This gene encodes a member of the aldo/keto reductase superfamily, which consists of more tha n 40 known enzymes and proteins. This member can efficiently reduce aliphatic and aromatic ald ehydes, and it is less active on hexoses. It is highly expressed in adrenal gland, small intestine, an d colon, and may play an important role in liver carcinogenesis. [provided by RefSeq
Other Designations	aldo-keto reductase family 1, member B10|aldo-keto reductase family 1, member B11 (aldose re ductase-like)|aldose reductase-like 1|aldose reductase-like peptide|aldose reductase-related prot ein|small intestine reductase

Publication Reference

- A novel uterine leiomyoma subtype exhibits NRF2 activation and mutations in genes associated with neddylation of the Cullin 3-RING E3 ligase.

  Miika Mehine, Terhi Ahvenainen, Sara Khamaiseh, Jouni Härkönen, Siiri Reinikka, Tuomas Heikkinen, Anna Äyräväinen, Päivi Pakarinen, Päivi Härkki, Annukka Pasanen, Anna-Liisa Levonen, Ralf Bützow, Pia Vahteristo.

  Oncogenesis 2022 Sep; 11(1):52.

  Application: IHC, Human, Human leiomyomas

- A physiological concentration of luteolin induces phase II drug-metabolizing enzymes through the ERK1/2 signaling pathway in HepG2 cells.

  Kitakaze T, Makiyama A, Samukawa Y, Jiang S, Yamashita Y, Ashida H.

  Archives of Biochemistry and Biophysics 2019 Mar; 633:151.

  Application: WB, Human, HepG2 cells

- Resistance to gefitinib and cross-resistance to irreversible EGFR-TKIs mediated by disruption of the Keap1-Nrf2 pathway in human lung cancer cells.

  Park SH, Kim JH, Ko E, Kim JY, Park MJ, Kim MJ, Seo H, Li S, Lee JY.

  FASEB Journal 2018 May; [Epub].

  Application: WB-Ce, WB-Tr, Human, HCC827 cells

- AKR1B10 Expression by Immunohistochemistry in Surgical Resections and Fine Needle Aspiration Cytology Material in Patients with Cystic Pancreatic Lesions; Potential for Improved Non-Operative Diagnosis.

  Connor JP, Esbona K, Matkowskyj KA.

  Human Pathology 2017 Oct; 70:77.

  Application: IHC-P, Human, Cystic tumor of patients with Cystic Pancreatic Lesions

- Quantification of the Host Response Proteome after Herpes Simplex 1 Virus infection.

  Berard AR, Coombs KM, Severini A.

  Journal of Proteome Research 2015 May; 14(5):2121.

  Application: WB, Human, HEK293 cells

- Aldo-Ketoreductase Family 1 B10 (AKR1B10) as A Biomarker to Distinguish Hepatocellular Carcinoma from Benign Liver Lesions.

  Matkowskyj KA, Bai H, Liao J, Zhang W, Li H, Rao S, Omary R, Yang GY.

  Human Pathology 2014 Apr; 45(4):834.

  Application: IHC, Human, Hepatocellular carcinoma

- An integrated functional genomics approach identifies the regulatory network directed by brachyury (T) in chordoma.

  Nelson AC, Pillay N, Henderson S, Presneau N, Tirabosco R, Halai D, Berisha F, Flicek P, Stemple DL, Stern CD, Wardle FC, Flanagan AM.

  The Journal of Pathology 2012 Nov; 228(3):274.

  Application: IHC, Human, Human chordoma

- A therapeutic method for the direct reprogramming of human liver cancer cells with only chemicals.

  Moriguchi H, Zhang Y, Mihara M, Sato C.

  Scientific Reports 2012 Feb; 2:280.

  Application: WB-Ti, Human, Human liver cancer

- Overexpression and oncogenic function of aldo-keto reductase family 1B10 (AKR1B10) in pancreatic carcinoma.

  Chung YT, Matkowskyj KA, Li H, Bai H, Zhang W, Tsao MS, Liao J, Yang GY.

  Modern pathology : an official journal of the United States and Canadian Academy of Pathology, Inc 2012 Jan; 25(5):758.

  Application: IHC-P, Human, Pancreatic adenocarcinomas

- AKR1B10 expression is associated with less aggressive hepatocellular carcinoma: a clinicopathological study of 168 cases.

  Schmitz KJ, Sotiropoulos GC, Baba HA, Schmid KW, Muller D, Paul A, Auer T, Gamerith G, Loeffler-Ragg J.

  Liver International 2011 Jul; 31(6):810.

  Application: IHC-P, Human, Human hepatocellular carcinoma

- Naturally occurring variants of human aldo-keto reductases with reduced in vitro metabolism of daunorubicin and doxorubicin.

  Bains OS, Grigliatti TA, Reid RE, Riggs KW.

  The Journal of Pharmacology and Experimental Therapeutics 2010 Dec; 335(3):533.

  Application: WB-Re, Recombinant protein

- Combined functional genome survey of therapeutic targets for hepatocellular carcinoma.

  Satow R, Shitashige M, Kanai Y, Takeshita F, Ojima H, Jigami T, Honda K, Kosuge T, Ochiya T, Hirohashi S, Yamada T.

  Clinical Cancer Research 2010 May; 16(9):2518.

  Application: IHC, WB, Human, Hepatocellular carcinoma, KIM-1 cells

- Proteomic Analysis of Bronchoalveolar Lavage Fluid Obtained from Rats Exposed to Formaldehyde.

  Ahn KH, Kim SK, Lee JM, Jeon HJ, Lee DH, Kim DK.

  Journal of health science 2010 Jan; 56(3):287.

  Application: WB-Ce, Human, A-549 cells

Pathway

- Bisphenol A degradation
- Butanoate metabolism
- Fructose and mannose metabolism
- Linoleic acid metabolism
- Metabolic pathways
- Tetrachloroethene degradation

Disease

- Cardiovascular Diseases
- Diabetes Mellitus
- Diabetic Nephropathies
- Diabetic Retinopathy

- Disease Progression
- Edema

- Genetic Predisposition to Disease