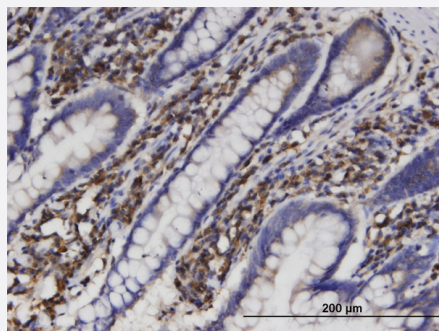


AKR1B1 monoclonal antibody (M03), clone 2D12

Catalog # H00000231-M03

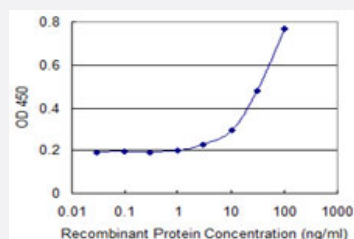
Size 100 ug

Applications



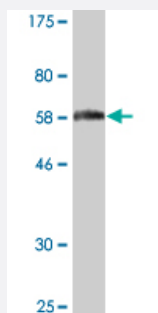
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunoperoxidase of monoclonal antibody to AKR1B1 on formalin-fixed paraffin-embedded human small Intestine. [antibody concentration 3 ug/ml]



Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged AKR1B1 is 1 ng/ml as a capture antibody.



Western Blot detection against Immunogen (60.39 KDa) .

Specification

Product Description

Mouse monoclonal antibody raised against a full-length recombinant AKR1B1.

Immunogen	AKR1B1 (AAH00260.1, 1 a.a. ~ 316 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Sequence	MASRLLLNNGAKMPILGLGTWKSPPGQVTEAVKVAIDVGYRHIDCAHVYQNEVEVGVAIQEKLRE QVVKREELFVMSKLWCTYHEKGLVKGACQKTLSDLKLDYLDLYLIHWPTGFKPGKEFFPLDESGN VVPSDTNILDTWAAMEELVDEGLVKAIGISNFNHLQVEMILNKPGLKYKPAVNQIECHPYLTQEKLQ YCQSKGMVVTAYSPLGSPDRPWAKPEDPSLLEDPRIKAAAKHNKTTAQVLIRFPMQRNLVVIPKSV TPERIAENFKVDFELSSQDMTLLSYNRNWRVCALLSCTSHKDYPFHEEF
Host	Mouse
Reactivity	Human
Interspecies Antigen Sequence	Mouse (86); Rat (86)
Isotype	IgG1 Kappa
Quality Control Testing	Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (60.39 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 (Recombinant protein)

[Protocol Download](#)

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

Immunoperoxidase of monoclonal antibody to AKR1B1 on formalin-fixed paraffin-embedded human small Intestine. [antibody concentration 3 ug/ml]

[Protocol Download](#)

- Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged AKR1B1 is 1 ng/ml as a capture antibody.

[Protocol Download](#)

- ELISA

Gene Info — AKR1B1

Entrez GeneID [231](#)

GeneBank Accession# [BC000260.1](#)

Protein Accession# [AAH00260.1](#)

Gene Name AKR1B1

Gene Alias ADR, ALDR1, ALR2, AR, MGC1804

Gene Description aldo-keto reductase family 1, member B1 (aldose reductase)

Omim ID [103880](#)

Gene Ontology [Hyperlink](#)

Gene Summary This gene encodes a member of the aldo/keto reductase superfamily, which consists of more than 40 known enzymes and proteins. This member catalyzes the reduction of a number of aldehydes, including the aldehyde form of glucose, and is thereby implicated in the development of diabetic complications by catalyzing the reduction of glucose to sorbitol. Multiple pseudogenes have been identified for this gene. The nomenclature system used by the HUGO Gene Nomenclature Committee to define human aldo-keto reductase family members is known to differ from that used by the Mouse Genome Informatics database. [provided by RefSeq]

Other Designations Lii5-2 CTCL tumor antigen|aldehyde reductase 1|aldo-keto reductase family 1, member B1|aldose reductase|low Km aldose reductase

Publication Reference

- [Endogenous reductase activities for the generation of ribitol-phosphate, a CDP-ribitol precursor, in mammals.](#)

Shunsuke Hoshino, Hiroshi Many, Rieko Imae, Kazuhiro Kobayashi, Motoi Kanagawa, Tamao Endo.

Journal of Biochemistry 2023 Dec; Epub.

Application: WB, Human, HEK293T cells

- [Proteasome inhibitors MG-132 and bortezomib induce AKR1C1; AKR1C3; AKR1B1; and AKR1B10 in human colon cancer cell lines SW-480 and HT-29.](#)

Ebert B, Kisiela M, Wsol V, Maser E.

Chemico-biological Interactions 2011 May; 191(1-3):239.

Application: WB, Human, Caco-2, HT-29, HCT116, SW-480, A-549, PANC-1, A431, HepG2 cells

Pathway

- [Fructose and mannose metabolism](#)
- [Galactose metabolism](#)
- [Glycerolipid metabolism](#)
- [Metabolic pathways](#)
- [Pentose and glucuronate interconversions](#)
- [Pyruvate metabolism](#)

Disease

- [Albuminuria](#)
- [Cardiovascular Diseases](#)
- [Coronary Disease](#)
- [Diabetes Complications](#)
- [Diabetes Mellitus](#)
- [Diabetic Angiopathies](#)
- [Diabetic Nephropathies](#)
- [Diabetic Neuropathies](#)
- [Diabetic Retinopathy](#)
- [Disease Progression](#)
- [Edema](#)
- [Genetic Predisposition to Disease](#)
- [Glomerulonephritis](#)
- [Hypospadias](#)
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- [Renal Insufficiency](#)