

Rabbit anti-Human AKR1B1 Monoclonal Antibody | anti-AKR1B1 antibody

Recombinant Anti-AKR1B1 Antibody, Rabbit Monoclonal

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA255393	Rabbit	Human	Immunoprecipitation, Immunofluorescence, Immunocytochemistry, ELISA, Western Blot

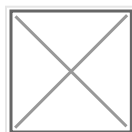
PRODUCT SYNONYMS

AKR1B1; Monoclonal Antibody; Recombinant Anti-AKR1B1 Antibody; Rabbit Monoclonal; AKR1B1 Antibody; Rabbit MAb; aldo-keto reductase family 1; member B1 (aldose reductase); Anti-ADR Antibody; Anti-ALDR1 Antibody; Anti-ALR2 Antibody; Anti-AR Antibody; Anti-MGC1804 Antibody; anti-AKR1B1 antibody

PRODUCT SPECIFICATIONS

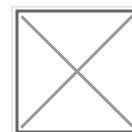
Host	Rabbit
Reactivity	Human
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Number	109
Specificity	Human AKR1B1
Purity/Purification	Protein A
Form/Format	Liquid; 0.2um filtered solution in PBS
Applicable Applications for anti-AKR1B1 antibody	IP (Immunoprecipitation), IF (Immunofluorescence), ICC (Immunocytochemistry), ELISA, WB (Western Blot)
Antibody Type	Recombinant Antibody
Immunogen	Recombinant Human AKR1B1 protein
Conjugation	Unconjugated
Preparation	This antibody was obtained from a rabbit immunized with purified, recombinant Human AKR1B1 (rh AKR1B1).
Preparation and Storage	This antibody can be stored at 2-8 degree C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 degree C to -80 degree C. Preservative-Free. Avoid repeated freeze-thaw cycles.

IMAGES



IF (Immunofluorescence)

Immunofluorescence staining of Human AKR1B1 in Hela cells. Cells were fixed with 4% PFA, permeabilized with 0.3% Triton X-100 in PBS, blocked with 10% serum, and incubated with rabbit anti-Human AKR1B1 monoclonal antibody (dilution ratio 1:60) at 4 degree C overnight. Then cells were stained with the Alexa Fluor 488-conjugated Goat Anti-rabbit IgG secondary antibody (green). Positive staining was localized to cytoplasm and nucleus.



IP (Immunoprecipitation)

AKR1B1 was immunoprecipitated using: Lane A: 0.5 mg Jurkat Whole Cell Lysate 0.5 uL anti-AKR1B1 rabbit monoclonal antibody and 15 ul of 50 % Protein G agarose. Primary antibody: Anti-AKR1B1 rabbit monoclonal antibody, at 1:500 dilution. Secondary antibody: DyLight 800-labeled antibody to rabbit IgG (H+L), at 1:5000 dilution. Developed using the Odyssey technique. Performed under reducing conditions. Predicted band size: 35 kDa. Observed band size: 35 kDa.



WB (Western Blot)

Anti-AKR1B1 rabbit monoclonal antibody at 1:500 dilution Lane A: Jurkat Whole Cell Lysate Lane B: Hela Whole Cell Lysate Lane C: A431 Whole Cell Lysate Lysates/proteins at 30 ug per lane. Secondary Goat Anti-Rabbit IgG H&L (Dylight800) at 1/10000 dilution. Developed using the Odyssey technique. Performed under reducing conditions. Predicted band size: 35 kDa Observed band size: 37 kDa

ADDITIONAL INFORMATION

Related Product Information for anti-AKR1B1 antibody	Aldose reductase (AKR1B1) belongs to the aldo/keto reductase superfamily. AKR1B1 is a NADPH-dependent aldo-keto reductase best known as the rate-limiting enzyme of the polyol pathway. Expression of AKR1B1 was the highest in lens and retina. It is the first enzyme in the polyol pathway through which glucose is converted to sorbitol which is important for the function of various organs in the body, and has been implicated in the etiology of diabetic complications. AKR1B1 is quite abundant in the collecting tubule cells and thought to provide protection against hypertonic environment. Some human tissues contain AKR1B1 as well as AKR1B10, a closely related member of the aldo-keto reductase superfamily.
References	Huang SP, et al. (2010) Aldo-Keto Reductases in the Eye. Journal of Ophthalmology. 326 (3): 625-36. Aida K, et al. (2000) Disruption of Aldose Reductase Gene (Akr1b1) Causes Defect in Urinary Concentrating Ability and Divalent Cation Homeostasis. Biochemical and Biophysical Research Communications. 277 (2): 281-6. Liao CS, et al. (2009) Regulation of AKR1B1 by thyroid hormone and its receptors. Molecular and Cellular Endocrinology. 307 (1-2): 109-17. Baba SP, et al. (2009) Posttranslational glutathiolation of aldose reductase (AKR1B1): A possible mechanism of protein recovery from S-nitrosylation. Chemico-Biological Interactions. 178 (1-3): 250-8.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4502049
NCBI GeneID	231
NCBI Accession #	NP_001619.1
NCBI GenBank Nucleotide #	NM_001628.2
UniProt Accession #	P15121; Q5U031; Q6FGA4; Q6ICP2; Q9BS21; Q9UCI9; B2R8N3
Molecular Weight	35,853 Da
NCBI Official Full Name	aldose reductase
NCBI Official Synonym Full Names	aldo-keto reductase family 1, member B1 (aldose reductase)
NCBI Official Symbol	AKR1B1
NCBI Official Synonym Symbols	AR; ADR; ALR2; ALDR1
NCBI Protein Information	aldose reductase; aldehyde reductase 1; low Km aldose reductase; Lii5-2 CTCL tumor antigen; aldo-keto reductase family 1 member B1
UniProt Protein Name	Aldose reductase
UniProt Gene Name	AKR1B1
UniProt Synonym Gene Names	ALDR1; AR
UniProt Entry Name	ALDR_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.