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

AKR1D1 Antibody (monoclonal) (M03)

Mouse monoclonal antibody raised against a partial recombinant AKR1D1.
Catalog # AT1095a

Product Information

Application	WB, E
Primary Accession	P51857
Other Accession	NM_005989
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG2b Kappa
Clone Names	1C2
Calculated MW	37377

Additional Information

Gene ID	6718
Other Names	3-oxo-5-beta-steroid 4-dehydrogenase, Aldo-keto reductase family 1 member D1, Delta(4)-3-ketosteroid 5-beta-reductase, Delta(4)-3-oxosteroid 5-beta-reductase, AKR1D1, SRD5B1
Target/Specificity	AKR1D1 (NP_005980, 227 a.a. ~ 326 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	AKR1D1 Antibody (monoclonal) (M03) is for research use only and not for use in diagnostic or therapeutic procedures.

Background

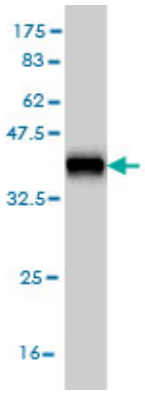
The enzyme encoded by this gene is responsible for the catalysis of the 5-beta-reduction of bile acid intermediates and steroid hormones carrying a delta(4)-3-one structure. Deficiency of this enzyme may contribute to hepatic dysfunction. Three transcript variants encoding different isoforms have been found for this gene. Other variants may be present, but their full-length natures have not been determined yet.

References

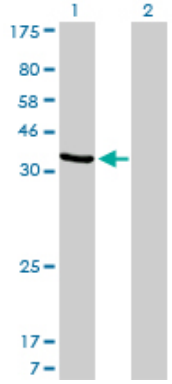
SRD5A2 is associated with increased cortisol metabolism in schizophrenia spectrum disorders. Steen NE, et

al. Prog Neuropsychopharmacol Biol Psychiatry, 2010 Aug 25. PMID 20800085.Personalized smoking cessation: interactions between nicotine dose, dependence and quit-success genotype score. Rose JE, et al. Mol Med, 2010 Jul-Aug. PMID 20379614.Characterization of the human CREB3L2 gene promoter. Panagopoulos I, et al. Oncol Rep, 2009 Mar. PMID 19212619.SRD5B1 gene analysis needed for the accurate diagnosis of primary 3-oxo-Delta4-steroid 5beta-reductase deficiency. Ueki I, et al. J Gastroenterol Hepatol, 2009 May. PMID 19175828.Crystal structures of human Delta4-3-ketosteroid 5beta-reductase (AKR1D1) reveal the presence of an alternative binding site responsible for substrate inhibition. Faucher F, et al. Biochemistry, 2008 Dec 23. PMID 19075558.

Images

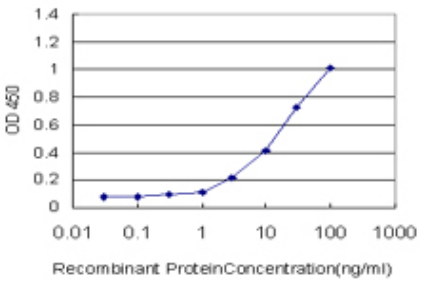


Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (36.74 KDa) .

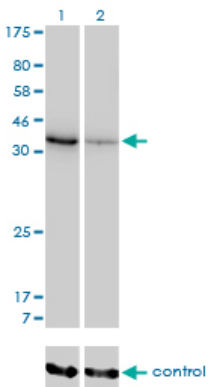


Western Blot analysis of AKR1D1 expression in transfected 293T cell line by AKR1D1 monoclonal antibody (M03), clone 1C2.

Lane 1: AKR1D1 transfected lysate(37.4 KDa).
Lane 2: Non-transfected lysate.



Detection limit for recombinant GST tagged AKR1D1 is approximately 0.3ng/ml as a capture antibody.



Western blot analysis of AKR1D1 over-expressed 293 cell line, cotransfected with AKR1D1 Validated Chimera RNAi ((Cat # AT1095a)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.