

Product datasheet for **TP504727**

Akr1a1 (NM_021473) Mouse Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse aldo-keto reductase family 1, member A1 (aldehyde reductase) (Akr1a1), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>MR204727 representing NM_021473 Red =Cloning site Green =Tags(s)
	<p>MTASSVLLHTGQKMPLIGLGTWKSEPGQVKAALKHALSAGYRHIDCASVYGNETEIGEALKESVSGSKAV PREELFVTSKLWNTKHHHPEDVEPALRKTLDLQLEYLDLYLMHWPYAFERGDNPFPKNADGTVRYDSTHY KETWKALEVLVAKGLVKALGLSNFNSRQIDDLVSVASVRPAVLQVECHPYLAQNELIAHCHARGLEV TAY SPLGSSDRAWRHPDEPVLLPEPVVLAALAEKHGRSPAQILLRWQVQRKVICIPKSINPSRILQNIQVFDFT FSPEEMKQLDALNKNWRYIVPMITVDGKRVPRDAGHPLYPFNDPY</p> <p>TRTRPLEQKLISEEDLAANDILDYKDDDDKV</p>
Tag:	C-MYC/DDK
Predicted MW:	36.6 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C after receiving vials.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	<u>NP_067448</u>
Locus ID:	58810
UniProt ID:	<u>Q9JII6</u>



[View online »](#)

RefSeq Size:	1435
Cytogenetics:	4 D1
RefSeq ORF:	975
Synonyms:	2610201A18Rik; Akr1a4
Summary:	<p>Catalyzes the NADPH-dependent reduction of a wide variety of carbonyl-containing compounds to their corresponding alcohols. Displays enzymatic activity towards endogenous metabolites such as aromatic and aliphatic aldehydes, ketones, monosaccharides and bile acids, with a preference for negatively charged substrates, such as glucuronate and succinic semialdehyde (By similarity) (PubMed:22820017, PubMed:15769935, PubMed:20410296). Plays an important role in ascorbic acid biosynthesis by catalyzing the reduction of D-glucuronic acid and D-glucurono-gamma-lactone (PubMed:20410296, PubMed:15769935, PubMed:22820017). Functions as a detoxifying enzyme by reducing a range of toxic aldehydes. Reduces methylglyoxal and 3-deoxyglucosone, which are present at elevated levels under hyperglycemic conditions and are cytotoxic (By similarity). Involved in the detoxification of lipid-derived aldehydes like acrolein (By similarity). Plays a role in the activation of procarcinogens, such as polycyclic aromatic hydrocarbon trans-dihydrodiols, and in the metabolism of various xenobiotics and drugs (By similarity). Displays no reductase activity towards retinoids (By similarity).[UniProtKB/Swiss-Prot Function]</p>