

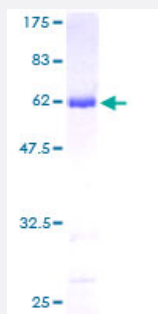
Full-Length

# AKR1A1 (Human) Recombinant Protein (P01)

Catalog # H00010327-P01

Size 25 ug, 10 ug

## Applications



## Specification

### Product Description

Human AKR1A1 full-length ORF ( AAH00670, 1 a.a. - 325 a.a.) recombinant protein with GST-tag at N-terminal.

### Sequence

MAASCVLLHTGQKMPLIGLGTWKSEPGQVKA AVKYALSVGYRHIDCAAYGNEPEIGEALKEDVG  
PGKAVPREELFVTSKLWNTKHHPEDVEPALRKTLADLQLEYLDLYLMHWPYA FERGDNPFPKNA  
DGTICYDSTHYKETWKALEALVAKGLVQALGLSNFNSRQIDDILSVASVRPAVLQVECHPYLAQNE  
LIAHCQARGLEVTAYSPLGSSDRAW RDPDEPVLLEEPVVLALAEKYGRSPAQILLRWQVQRKVICI  
PKSITPSRILQNIKVDFDTFSPEEMKQLNALNKNWRYVPMLTVDGKRVPRDAGHPLYPFNDPY

### Host

Wheat Germ (in vitro)

### Theoretical MW (kDa)

61.49

### Interspecies Antigen Sequence

Mouse (93); Rat (94)

### Preparation Method

[in vitro wheat germ expression system](#)

### Purification

Glutathione Sepharose 4 Fast Flow

### Quality Control Testing

12.5% SDS-PAGE Stained with Coomassie Blue.

### Storage Buffer

50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

**Storage Instruction**

Store at -80°C. Aliquot to avoid repeated freezing and thawing.

**Note**

Best use within three months from the date of receipt of this protein.

## Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

## Gene Info — AKR1A1

**Entrez GeneID**[10327](#)**GeneBank Accession#**[BC000670](#)**Protein Accession#**[AAH00670](#)**Gene Name**

AKR1A1

**Gene Alias**

ALDR1, ALR, ARM, DD3, MGC12529, MGC1380

**Gene Description**

aldo-keto reductase family 1, member A1 (aldehyde reductase)

**Omim ID**[103830](#)**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, also known as aldehyde reductase, is involved in the reduction of biogenic and xenobiotic aldehydes and is present in virtually every tissue. Alternative splicing of this gene results in two transcript variants encoding the same protein. [provided by RefSeq]

**Other Designations**

OTTHUMP00000009240|OTTHUMP00000009241|alcohol dehydrogenase|aldehyde reductase|aldo-keto reductase family 1, member A1|dihydrodiol dehydrogenase 3

## Publication Reference

- [In vitro metabolism of a novel JNK inhibitor tanzisertib: interspecies differences in oxido-reduction and characterization of enzymes involved in metabolism.](#)

Atsriku C, Hoffmann M, Moghaddam M, Kumar G, Surapaneni S.

Xenobiotica 2015 Jun; 45(6):465.

Application: Enzyme, Human, Tanzisertib were incubated in human liver microsomes, cytosol and hepatocytes

- [CBR1 is a predominant doxorubicin reductase in the human liver.](#)

Kassner N, Huse K, Martin HJ, Godtel-Armbrust U, Metzger A, Meineke I, Brockmoller J, Klein K, Zanger UM, Maser E, Wojnowski L.

Drug Metabolism and Disposition 2008 Jul; 36(10):2113.

Application: Enzyme, Doxorubicin

## Pathway

- [Caprolactam degradation](#)
- [Glycerolipid metabolism](#)
- [Glycolysis / Gluconeogenesis](#)
- [Metabolic pathways](#)

## Disease

- [Adenocarcinoma](#)
- [Esophageal Neoplasms](#)
- [Genetic Predisposition to Disease](#)
- [Lung Neoplasms](#)
- [Lymphoma](#)
- [Pulmonary Disease](#)
- [Urinary Bladder Neoplasms](#)
- [Werner syndrome](#)