

# Recombinant mouse Guanine deaminase/GDA protein

Catalog Number: ATGP3666

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

1-454aa

### UniProt No.

Q9R111

### NCBI Accession No.

NP\_034396

### Alternative Names

Guanine deaminase, AU015411, AW047581, GAH, Guanase, Guanine aminase, Guanine aminohydrolase

## PRODUCT SPECIFICATION

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### Molecular Weight

53.4 kDa (477aa) Confirmed by MALDI-TOF

### Concentration

0.5mg/ml (determined by absorbance at 280nm)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.15M NaCl, 1mM DTT, 10% glycerol

### Purity

> 95% by SDS-PAGE

### Biological Activity

Specific activity is > 4,000pmol/min/ug, and is defined as the amount of enzyme that convert guanine to xanthine per minute at pH 8.0 at 37C.

### Tag

His-Tag

### Application

SDS-PAGE, Enzyme Activity

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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### Description

Gda, also known as guanine deaminase, catalyzes the hydrolytic deamination of guanine, producing xanthine and ammonia. Studies in rat ortholog suggest this gene plays a role in microtubule assembly. Multiple transcript variants encoding different isoforms have been found for this gene. Recombinant mouse Gda, fused to His-tag at

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N-terminus, was expressed in E. coli and purified by conventional chromatography techniques.

## Amino acid Sequence

MGSSHHHHHHH SSSLVPRGSH MGSMAARTP PLALVFRGTF VHSTWTC PME VLRDHLLGVS DSGKIVFLEE SSQQEKLAK  
WCFKPCEIRE LSHHEFFMPG LVDTHIHAPQ YAFAGSNVDL PLEWLNKYT FPTEQRFRST DVAEEVYTRV VRRTLKNGTT  
TACYFGTIHT DSSLILAEIT DKFGQRAFGV KVCMDLNDTV PEYKETTEES VKETERFVSE MLQKNYPRVK PIVTPRFTLS  
CTETLMSELG NIAKTHDLYI QSHISENREE IEAVKSLYPS YKNYTDVYDK NLLTNKTVM AHGCYLSEEE LNIFSERGAS  
IAHCPNSNLS LSSGLLVLE VLKHKVKIGL GTDVAGGYSY SMLDAIRRAV MVSNVLLINK VNEKNLTLKE VFRLATLGG  
QALGLDSEIG NFEVKGFEFA LLINPRASDS PIDLFYGFV GDISEAVIQK FLYLGDDRNI EEVYVGGKQV VPFSSSV

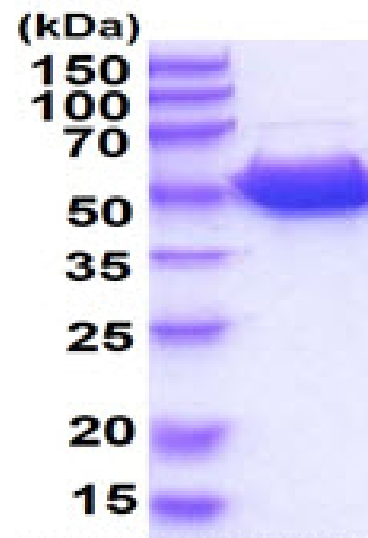
## General References

Yuan G, et al. (1999). J Biol Chem. 274(12):8175-80

Trautwein-Schult A, et al (2014) J Mol Microbiol Biotechnol. 24(2):67-81

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

15% SDS-PAGE (3ug)