

# Recombinant human Glutathione S-transferase alpha 1/GSTA1 protein

Catalog Number: ATGP0443

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

1-222aa

### UniProt No.

P08263

### NCBI Accession No.

NP\_665683

### Alternative Names

Glutathione S transferase A1, Glutathione S-transferase alpha 1, GST epsilon, GST2, GSTA1, GSTA1-1, GTH1, HA subunit 1

## PRODUCT SPECIFICATION

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### Molecular Weight

25.6 kDa (222aa) confirmed by MALDI-TOF

### Concentration

1mg/ml (determined by Bradford assay)

### Formulation

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

### Purity

> 90% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Biological Activity

Specific activity is > 35,000pmol/min/ug, and is defined as the amount of enzyme that conjugate 1.0 u mole of 1-chloro-2,4-dinitrobenzene (CDNB) with reduced glutathione per minute at pH 6.5 at 25C.

### Tag

Non-Tagged

### 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.

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## BACKGROUND

### Description

GSTA1, also known as Glutathione S-transferase alpha 1, belongs to a glutathione S-transferase alpha class and is the most abundantly expressed in liver. This protein functions in the detoxification of electrophilic compounds, including carcinogens, therapeutic drugs, environmental toxins and products of oxidative stress, by conjugation with glutathione. Recombinant human GSTA1 protein was expressed in *E. coli* and purified by using conventional chromatography techniques.

### Amino acid Sequence

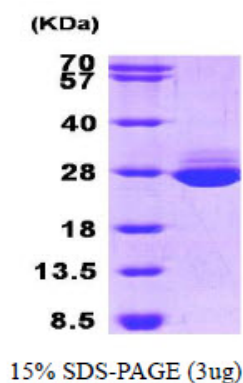
MAEKPKLHYF NARGRMESTR WLLAAAGVEF EEKFIKSAED LDKLRNDGYL MFQQVPMVEI DGMKLVQTRA ILNYIASKYN  
LYGKDIKERA LIDMYIEGIA DLGEMILLLP VCPPEEKDAK LALIKEKIKN RYFPAFEKVL KSHGQDYLVG NKLSRADIHL  
VELLYYVEEL DSSLISSFPL LKALKTRISN LPTVKKFLQP GSPRKPPMDE KSLEEARKIF RF

### General References

Rossi D., et al. (2009) *Leukemia*. 23(6):1118-26.  
Hou L., et al. (2007) *J Biol Chem*. 282(32):23264-74.

## DATA

### SDS-PAGE



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