

# GSTA4, human recombinant

<b>CATALOG #:</b>	7800-100	100 µg
<b>ALTERNATE NAMES:</b>	Glutathione S-transferase alpha 4, GSTA4-4, GTA4	
<b>SOURCE:</b>	E. Coli	
<b>PURITY:</b>	> 95% by SDS - PAGE	
<b>MOL. WEIGHT:</b>	28.3 kDa (246 aa, 1-222 aa + His Tag)	
<b>FORM:</b>	Liquid	
<b>FORMULATION:</b>	1 mg/ml solution 20 mM Tris-HCl buffer, pH 8.0, 20% glycerol, 2 mM DTT and 100 mM NaCl.	

## STORAGE CONDITIONS:

Can be stored at 4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

## DESCRIPTION:

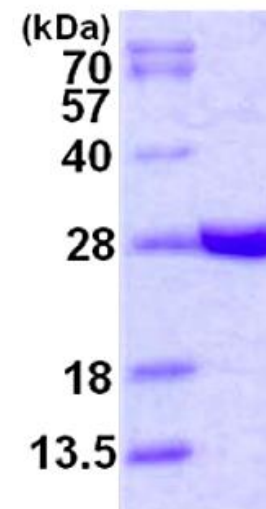
GSTA4, also known as glutathione S-transferase A4, belongs to the GST superfamily. This enzyme is involved in cellular defense against toxic, carcinogenic, and pharmacologically active electrophilic compounds. GSTA4 shows very high activity with reactive carbonyl compounds such as alk-2-enals. GSTA4 is highly effective in catalyzing the conjugate addition of reduced glutathione to 4-hydroxynonenal, an important product of peroxidative degradation of arachidonic acid and a commonly used biomarker for oxidative damage in tissue. This enzyme is expressed at a high level in brain, placenta, and skeletal muscle and much lower in lung and liver. Recombinant human GSTA4 protein, fused to His-tag at N-terminus, was expressed in E.Coli and purified by using conventional chromatography techniques.

## AMINO ACID SEQUENCE:

MGSSHHHHHH SGLVPRGSH MGSMAARPK LHYPNGRGRM ESVRWVLA  
AA GVEFDEEFLE TKEQLYKLDQ GNHLLFQQVP MVEIDGMKLV QTRSILHYIA DKHNLFGK  
NL KERTLIDMYV EGTLDLLELL IMHPFLKPDD QQKEVVNMAQ KAIIRYFPVF EKILRGHG  
QS FLVGNQLSLA DVILLQTLA LEEKIPNILS AFPFLQEYTV KLSNIPTIKR FLEPGSKKKP  
PPDEIYVRTV YNIFRP

## BIOLOGICAL ACTIVITY:

Specific activity > 0.9 units/mg, one unit is defined as the amount of enzyme that conjugate 1.0 µmole of 1-chloro-2, 4- dinitrobenzene (CDNB), with reduced glutathione per minute pH 6.5 at 25°C.



Human Recombinant GSTA4

## RELATED PRODUCTS:

- Human Recombinant GSTA1 (Cat. No. 6346-100)
- GST Colorimetric Activity Assay Kit (Cat. No. K263-100)
- GST Fluorometric Activity Assay Kit (Cat. No. K260-100)
- GST Inhibitor-1 (Cibacron Blue 3G-A, Sodium Salt) (Cat. No. 1555R-1000)
- GST Inhibitor-2 (Ethacrynic acid) (Cat. No. 1556-1000)
- Human recombinant GSTP1 (Cat. No. 6347-100)
- Mouse recombinant GSTMu 1 (Cat. No. 6348-100)
- Mouse recombinant GSTM1 (Cat. No. 6349-100)
- Human recombinant GSTM2 (Cat. No. 6350-100)
- Schistosoma japonicum recombinant GST (Cat. No. 6351-100)
- Human recombinant GSR (Cat. No. 6352-100)

**FOR RESEARCH USE ONLY! Not to be used in humans.**