

## 32-6785: GSTA4 Human, Active

**Application :** Functional Assay

**Alternative Name :** Glutathione S-transferase A4, GST class-alpha member 4, Glutathione S-transferase A4-4, GSTA4, GSTA4-4.

### Description

Source: Escherichia Coli.

Sterile Filtered clear solution.

Glutathione S-transferase A4 (GSTA4) is a member of the GST superfamily. The GSTA4 enzyme is involved in cellular defense against toxic, carcinogenic, and pharmacologically active electrophilic compounds. GSTA4 shows an especially high activity with reactive carbonyl compounds such as alk-2-enals. GSTA4 is extremely effective in catalyzing the conjugate addition of reduced glutathione to 4-hydroxynonenal, which is an important product of peroxidative degradation of arachidonic acid and a frequently used biomarker for oxidative damage in tissue. The GSTA4 enzyme is expressed at a high level in the brain, placenta, and skeletal muscle and much lower in the lung and liver.

GSTA4 Human Recombinant produced in E.coli is a single, non-glycosylated polypeptide chain containing 246 amino acids (1-222) and having a molecular mass of 28.3kDa. GSTA4 is fused to a 24 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

### Product Info

**Amount :** 2 µg / 10 µg

**Purification :** Greater than 95.0% as determined by SDS-PAGE.

**Content :** The GSTA4 solution (1mg/ml) contains 20mM Tris-HCl buffer, pH8.0, 20% glycerol, 2mM DTT and 100mM NaCl.

**Storage condition :** Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

**Amino Acid :** MGSSHHHHHH SSGLVPRGSH MGSMAARPK LHYPNGRGRM ESVRWVLAAG VEFDEEFLE  
TKEQLYKLQD GNHLLFQQVP MVEIDGMKLV QTRSILHYIA DKHNLFQKLN KERTLIDMYV EGTLDLLELL  
IMHPFLKPDD QQKEVVNMAQ KAIIRYFPVF EKILRGHGQS FLVGNQLSLA DVILLQTLA LEEKIPNILS  
AFPFLQEYTV KLSNIPTIKR FLEPGSKKKP PPDEIYVRTV YNIFRP.

### Application Note

Specific activity is > 4,000 pmol/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.