

GSTM3, 1-225 aa

Human, His-tagged, Recombinant, *E.coli*

Cat. No. IBATGP1463

Full name: Glutathione S-transferase Mu 3

NCBI Accession No.: NP_000840

Synonyms: GST5, GSTB, GSTM3-3, GTM3

Description: Glutathione S-transferase mu 3, also known as GSTM3, is member of the glutathione s-transferase (GST) family of proteins. There are eight families of GST proteins, namely alpha, kappa, mu, omega, pi, sigma, theta and zeta, each of which is composed of proteins that have a variety of functions throughout the cell. The mu class of enzymes functions in the detoxification of electrophilic compounds, including carcinogens, therapeutic drugs, environmental toxins and products of oxidative stress, by conjugation with glutathione. Recombinant human GSTM3 protein, fused to His-tag at N-terminus, was expressed in *E.coli* and purified by using conventional chromatography techniques.

Form: Liquid. In 20 mM Tris-HCl buffer (pH8.0) containing 1mM DTT, 10% glycerol, 0.1M NaCl

Molecular Weight: 29.1 kDa (249aa), confirmed by MALDI-TOF

Purity: > 95% by SDS - PAGE

Concentration: 1 mg/ml (determined by Bradford assay)

Biological activity: Specific activity is > 15,000 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.

(kDa)

57

40

28

18

13.5

15% SDS-PAGE (3ug)

Sequences of aminoacids:

MGSSHHHHHH SSGLVPRGSH MGSMSCESS MVLGYWDIRG LAHAIRLLLE FTDTSYEEKR YTCGEAPDYD RSQWLVDVKFK LDLDFFNLPY
LLDGKNIKITQ SNAILRYIAR KHNMCGETEE EKIRVDIIEEN QVMDFRTQLI RLCYSSDHEK LKPQYLEELP GQLKQFSMFL GKFSWFAGEK
LTFVDFLTYD ILDQNRIFDP KCLDEFPNLK AFMCRFEALE KIAAYLQSDQ FCKMPINNKM AQWGNKPVC

Activity Assay

1. Prepare a 180ul assay buffer into a suitable container. The concentrations are 106mM potassium phosphate (pH6.5), 1.1mM EDTA, 5.5mM glutathione, reduced, 2.2mM 1-chloro-2,4-dinitrobenzene (CDNB), 8% (v/v) ethanol.
2. Equilibrate to 25C and monitor at A340nm until the value is constant using a spectrophotometer.
3. Add 20ul of recombinant GSTM3 protein 10ug/ml in assay buffer.
4. Mix by inversion and record the decrease at A340nm for approximately 5 minutes.

For research use only. This product is not intended or approved for human, diagnostics or veterinary use.



Manufactured for:

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Product information



General references:

Boqaards JJ., et al. (1992) Biochem J. 289(2):383-8.

Rozell B., et al. (1992) Xenobiotica. 23(8):835-49.

Storage: 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.

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