

Glutathione S Transferase Mu 1 (GSTM1) Active Protein | GSTM1 active protein

Active Glutathione S Transferase Mu 1 (GSTM1)

CATALOG # AAA161760	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Glutathione S Transferase Mu 1 (GSTM1); Active Glutathione S Transferase Mu 1 (GSTM1); Glutathione S Transferase Mu 1; GST-M1; GST1; GSTM1-1; GSTM1a-1a; GSTM1b-1b; GTH4; GTM1; H-B; MU1; GST HB subunit 44; GSTM1 active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 90% by SDS-PAGE
Form/Format	Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence	Met1~Lys218
Applicable Applications for GSTM1 active protein	Activity Assay, Cell Culture
Species	Human
Expression System	Prokaryotic expression
Tag	N-terminal His Tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	6.6
Research Area	Enzyme & Kinase
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months

IMAGES

Specific Activity (pmol/min/ug)=

Adjusted V_{max}^* (OD/min) x well volume (L) x 10^{12} pmol/mol

ext. coeff** ($M^{-1}cm^{-1}$) x path corr.*** (cm) x amount of enzyme (ug)

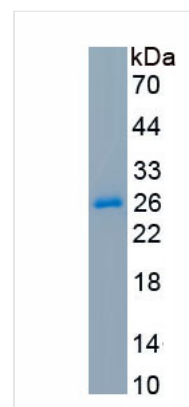
*Adjusted for Substrate Blank

**Using the extinction coefficient 9600 $M^{-1}cm^{-1}$

***Using the path correction 0.32 cm

Bioactivity

Glutathione S-Transferases (GSTs) are members of the phase II detoxification enzyme family that conjugate glutathione to various electrophilic compounds, including metabolites generated by oxidative processes in the body, environmental toxins or carcinogens, and anti-cancer drugs. GSTM1 is a cytosolic protein that belongs to the mu class of the GST superfamily. GSTM1 catalyze the endogenous glutathione conjugation 1-Chloro-2,4-dinitrobenzene (CDNB), which can increase in the absorbance at 340 nm. The reaction was performed in adding 10 ul 200 mM glutathione (reduced) and 10 ul 100 mM CDNB in 980 ul 100 mM NaH₂PO₄ (pH7.0), rapidly mixed. Then add 50 ul mixed substrates to 50 ul different concentrations of recombinant human GSTM1, mix gently. Incubated at 37 degree C for 5min, then read at a wavelength of 340 nm. The specific activity of recombinant human GSTM1 is >330,000 pmol/min/ug.



SDS-PAGE

Figure. SDS-PAGE

ADDITIONAL INFORMATION

Product Categories/Family for GSTM1 active protein	Active proteins
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NCBI AND UNIPROT INFORMATION

NCBI GI #	121735
NCBI GeneID	2944
UniProt Accession #	P09488; Q5GHG0; Q6FH88; Q8TC98; Q9UC96
Molecular Weight	218
NCBI Official Full Name	Glutathione S-transferase Mu 1
NCBI Official Synonym Full Names	glutathione S-transferase mu 1
NCBI Official Symbol	GSTM1
NCBI Official Synonym Symbols	MU; H-B; GST1; GTH4; GTM1; MU-1; GSTM1-1; GSTM1a-1a; GSTM1b-1b
NCBI Protein Information	glutathione S-transferase Mu 1; HB subunit 4; GST class-mu 1; GST HB subunit 4; glutathione S-transferase M1; glutathione S-aryltransferase; glutathione S-alkyltransferase; glutathione S-aralkyltransferase; S-(hydroxyalkyl)glutathione lyase
UniProt Protein Name	Glutathione S-transferase Mu 1
UniProt Gene Name	GSTM1
UniProt Synonym Gene Names	GST1
UniProt Entry Name	GSTM1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/e-coli-active-protein/glutathione-s-transferase-mu-1-gstm1/161760>