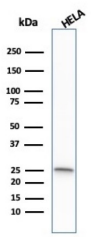
GST Mu 1 Antibody / Mu Class GST Antibody [clone CPTC-GSTMu1-3] (V7280)

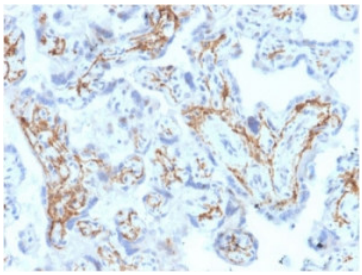
Catalog No.	Formulation	Size
V7280-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7280-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7280SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V7280IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

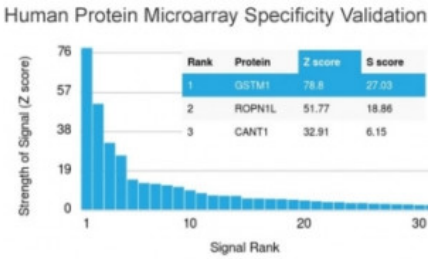
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	CPTC-GSTMu1-3
Purity	Protein G affinity chromatography
UniProt	P09488
Localization	Cytoplasmic
Applications	Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 0.5-1ug/ml for 30 min at RT
Limitations	This GST Mu 1 Antibody / Mu Class GST Antibody is available for research use only.



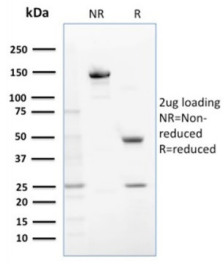
GST Mu 1 Antibody in Human HeLa Cervical Cancer Cells WB. Western blot testing of GST Mu 1 Antibody / Mu Class GST Antibody in human HeLa cervical cancer cell lysate. A prominent band is detected at approximately 26 kDa, consistent with the predicted molecular weight of GSTM1. This GST Mu 1 Antibody demonstrates detection of GSTM1 in human HeLa cells.



GST Mu 1 Antibody in Human Placenta IHC. Immunohistochemistry testing of GST Mu 1 Antibody / Mu Class GST Antibody in FFPE human placental tissue. Heat-induced epitope retrieval was performed by boiling tissue sections in 10 mM citrate buffer, pH 6, for 10-20 min followed by cooling prior to staining. This GST Mu 1 Antibody demonstrates detection of GSTM1 in human placental tissue.



GST Mu 1 Antibody Protein Microarray Analysis. Protein microarray analysis of GST Mu 1 Antibody / Mu Class GST Antibody using a HuProt microarray containing more than 19,000 full-length human proteins. Z-scores represent antibody-binding signal strength in standard deviations above the mean signal across the array, while the S-score represents the difference between the highest and next-highest Z-scores and provides a measure of relative target specificity. This analysis evaluates the binding profile of clone CPTC-GSTMu1-3 across the human proteome.



GST Mu 1 Antibody Purity Analysis by SDS-PAGE. Electrophoretic analysis of purified GST Mu 1 Antibody / Mu Class GST Antibody under non-reducing (NR) and reducing (R) conditions with 2 ug of antibody loaded per lane. The non-reduced antibody migrates predominantly at approximately 150 kDa, consistent with intact IgG, while reduction produces bands at approximately 50 kDa and 25 kDa, corresponding to the IgG heavy and light chains, respectively. This analysis confirms the purity and structural integrity of the purified GST Mu 1 Antibody.

Description

GST Mu 1 Antibody / Mu Class GST Antibody recognizes GSTM1, a cytosolic enzyme belonging to the mu class of glutathione S-transferases. GSTM1 contributes to cellular detoxification by catalyzing the conjugation of reduced glutathione to electrophilic compounds. This activity helps protect cells against reactive products generated by oxidative stress as well as environmental toxins, carcinogens and other xenobiotic compounds.

GSTM1 is part of a closely related group of mu class GST enzymes encoded by a gene cluster on chromosome 1. These enzymes participate in glutathione-dependent metabolism and cellular defense against potentially damaging chemical compounds. GSTM1 is therefore widely studied in research involving xenobiotic metabolism, oxidative stress, toxicology and cellular responses to environmental exposure.

The GSTM1 gene is highly polymorphic, and a common homozygous deletion produces the GSTM1-null genotype, resulting in absence of functional GSTM1 protein. This variation has been extensively investigated in relation to individual differences in detoxification capacity and susceptibility to environmental carcinogens. GSTM1 genetic status has consequently been examined in cancer susceptibility, drug response and other conditions influenced by oxidative or chemical stress. Multiple transcript variants of GSTM1 have also been described.

Clone CPTC-GSTMu1-3 is a mouse monoclonal antibody generated against full-length recombinant human GSTM1 and purified by Protein G affinity chromatography. NSJ Bioreagents provides this GST Mu 1 Antibody for research into GSTM1 expression, glutathione-dependent detoxification and cellular defense mechanisms. A Mu Class GST Antibody recognizing GSTM1 can support studies of this enzyme and its role in xenobiotic metabolism and oxidative stress responses.

For additional reagents and information on GSTM1-mediated detoxification and oxidative stress responses, visit our GSTM1 Antibody / Glutathione S-Transferase Mu 1 Antibody page.

Application Notes

Optimal dilution of the GST Mu 1 Antibody / Mu Class GST Antibody should be determined by the researcher.

1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Full length recombinant human protein was used as the immunogen for this GSTM1 antibody.

Storage

Store the GSTM1 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

GST Mu 1 antibody, GSTM1 antibody, glutathione S-transferase Mu 1 antibody, Mu Class GST antibody

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