

# GSTM2 (E-9): sc-376486

## BACKGROUND

Members of the glutathione S-transferase (GST) family of proteins function in the detoxification of xenobiotics to protect cells against toxicant-induced damage. There are eight families of GST proteins, namely  $\alpha$ ,  $\zeta$ ,  $\theta$ ,  $\kappa$ ,  $\mu$ ,  $\pi$ ,  $\sigma$  and  $\omega$ , each of which are composed of proteins that have a variety of functions throughout the cell. The GSTM proteins (GSTM1-GSTM5 in human and GSTM1-GSTM7 in mouse) are members of the  $\mu$  class of enzymes that conjugate with glutathione and function in the detoxification of carcinogens, environmental toxins and products of oxidative stress.

## CHROMOSOMAL LOCATION

Genetic locus: GSTM2 (human) mapping to 1p13.3.

## SOURCE

GSTM2 (E-9) is a mouse monoclonal antibody raised against amino acids 1-218 representing full length GSTM2 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

GSTM2 (E-9) is available conjugated to agarose (sc-376486 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376486 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376486 PE), fluorescein (sc-376486 FITC), Alexa Fluor<sup>®</sup> 488 (sc-376486 AF488), Alexa Fluor<sup>®</sup> 546 (sc-376486 AF546), Alexa Fluor<sup>®</sup> 594 (sc-376486 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-376486 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-376486 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-376486 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

GSTM2 (E-9) is recommended for detection of GSTM2 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); may cross-react with GSTM1, GSTM3, GSTM4 and GSTM5.

Suitable for use as control antibody for GSTM2 siRNA (h): sc-105426, GSTM2 shRNA Plasmid (h): sc-105426-SH and GSTM2 shRNA (h) Lentiviral Particles: sc-105426-V.

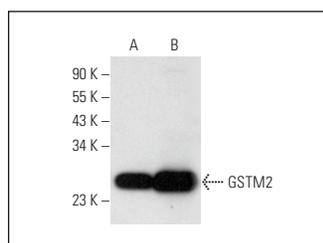
Molecular Weight of all GSTM proteins: 26 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, A-673 cell lysate: sc-2414 or human skeletal muscle extract: sc-363776.

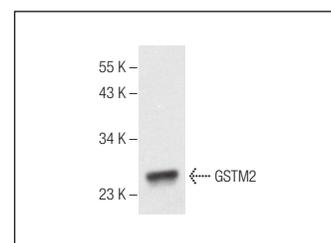
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



GSTM2 (E-9): sc-376486. Western blot analysis of GSTM2 expression in A-673 whole cell lysate (A) and human skeletal muscle tissue extract (B).



GSTM2 (E-9): sc-376486. Western blot analysis of GSTM2 expression in Hep G2 whole cell lysate.

## SELECT PRODUCT CITATIONS

- Fafián-Labora, J.A., et al. 2020. Small extracellular vesicles have GST activity and ameliorate senescence-related tissue damage. *Cell Metab.* 32: 71-86.e5.
- Cheng, S.Y., et al. 2021. Glutathione S-transferase M3 is associated with glycolysis in intrinsic temozolomide-resistant glioblastoma multiforme cells. *Int. J. Mol. Sci.* 22: 7080.
- Xu, B., et al. 2022. A quantitative proteomic analysis reveals the potential roles of PRDX3 in neurite outgrowth in N2a-APPsw cells. *Biochem. Biophys. Res. Commun.* 604: 144-150.
- Kang, Y.T., et al. 2024. Exposure to nickel chloride induces epigenetic modification on detoxification enzyme glutathione S-transferase M2. *Environ. Toxicol.* 39: 1729-1736.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

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