SANTA CRUZ BIOTECHNOLOGY, INC.

GSTM2 (E-9): sc-376486

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 α, ζ, θ, κ, μ, π, σ and ω, 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 μ 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 µg IgG_1 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 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-376486 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376486 PE), fluorescein (sc-376486 FITC), Alexa Fluor® 488 (sc-376486 AF488), Alexa Fluor® 546 (sc-376486 AF546), Alexa Fluor® 594 (sc-376486 AF594) or Alexa Fluor® 647 (sc-376486 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376486 AF680) or Alexa Fluor® 790 (sc-376486 AF790), 200 µg/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 µg per 100-500 µg 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.

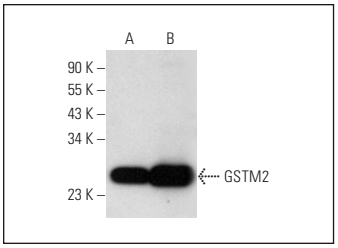
Molecular Weight of all GSTM proteins: 26 kDa.

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

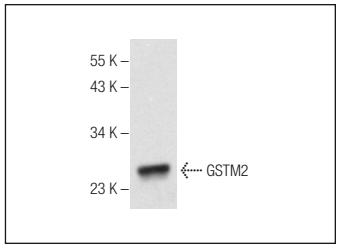
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® 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

1. 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.
2. 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.
3. Xu, B., et al. 2022. A quantitative proteomic analysis reveals the potential roles of PRDX3 in neurite outgrowth in N2a-APPswe cells. Biochem. Biophys. Res. Commun. 604: 144-150.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.