## SANTA CRUZ BIOTECHNOLOGY, INC.

# MGST2 (H-58): sc-67214



## BACKGROUND

MGST2 (Microsomal glutathione S-transferase 2) is a 147 amino acid protein encoded by the human gene MGST2. MGST2 can catalyze the production of LTC4 (leukotriene C4) from LTA4 (leukotriene A4) and reduced glutathione. It can also catalyze the conjugation of 1-chloro-2,4-dinitrobenzene with reduced glutathione. MSGT2 is a multi-pass membrane protein found as a homodimer. MGST2 belongs to the MAPEG family and is expressed in liver, spleen, skeletal muscle, heart, adrenals, pancreas, prostate, testis, fetal liver, and fetal spleen. It has very low expression in lung, brain, placenta and bone marrow. Also, MGST2 is the only GST expressed in human umbilical vein endothelial cells (HUVECs).

## REFERENCES

- 1. Jakobsson, P.J., et al. 1996. Identi-fication and characterization of a novel human microsomal glutathione S-transferase with leukotriene C4 synthase activity and significant sequence identity to 5-lipoxygenase-activating protein and leukotriene C4 synthase. J. Biol. Chem. 271: 22203-22210.
- 2. Sjöström, M., et al. 2001. Human umbilical vein endothelial cells generate leukotriene C4 via microsomal glutathione S-transferase type 2 and express the CysLT1 receptor. Eur. J. Biochem. 268: 2578-2586.
- 3. Schröder, O., et al. 2004. Microsomal glutathione S-transferases: selective upregulation of leukotriene C4 synthase during lipopolysaccharide-induced pyresis. Cell. Mol. Life Sci. 62: 87-94.
- 4. Bresell, A., et al. 2005. Bioinformatic and enzymatic characterization of the MAPEG superfamily. FEBS J. 272: 1688-1703.
- 5. Veeriah, S., et al. 2006. Apple flavonoids inhibit growth of HT29 human colon cancer cells and modulate expression of genes involved in the biotransformation of xenobiotics. Mol. Carcinog. 45: 164-174.
- 6. Yan, K.L., et al. 2006. A novel MGST2 non-synonymous mutation in a Chinese pedigree with psoriasis vulgaris. J. Invest. Dermatol. 126: 1003-1005.
- 7. Yang, S., et al. 2006. Systematic evaluation of association between the microsomal glutathione S-transferase 2 common variation and psoriasis vulgaris in Chinese population. Arch. Dermatol. Res. 298: 107-112.

## CHROMOSOMAL LOCATION

Genetic locus: MGST2 (human) mapping to 4q31.1; Mgst2 (mouse) mapping to 3 C.

#### SOURCE

MGST2 (H-58) is a rabbit polyclonal antibody raised against amino acids 51-108 mapping at the C-terminus of MGST2 of human origin.

#### PRODUCT

Each vial contains 200 µg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

### **RESEARCH USE**

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

#### **APPLICATIONS**

MGST2 (H-58) is recommended for detection of MGST2 of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, 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).

MGST2 (H-58) is also recommended for detection of MGST2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MGST2 siRNA (h): sc-62610, MGST2 siRNA (m): sc-62611, MGST2 shRNA Plasmid (h): sc-62610-SH, MGST2 shRNA Plasmid (m): sc-62611-SH, MGST2 shRNA (h) Lentiviral Particles: sc-62610-V and MGST2 shRNA (m) Lentiviral Particles: sc-62611-V.

Molecular Weight of MGST2: 16 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

## **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat antirabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

## **STORAGE**

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

#### **PROTOCOLS**

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