

Mouse Anti-GSTM3 (Glutathione S-Transferase Mu3) [MD108]: MC0408, MC0408RTU7

Intended Use: For Research Use Only

Description: Cytosolic and membrane-bound forms of glutathione S-transferase are encoded by two distinct supergene families. At present, eight distinct classes of the soluble cytoplasmic mammalian glutathione S-transferases have been identified: alpha, kappa, mu, omega, pi, sigma, theta and zeta. This gene encodes a glutathione S-transferase that belongs to the mu class. The mu class of enzymes functions in the detoxification of electrophilic compounds, including carcinogens, therapeutic drugs, environmental toxins and products of oxidative stress, by conjugation with glutathione. The genes encoding the mu class of enzymes are organized in a gene cluster on chromosome 1p13.3 and are known to be highly polymorphic. These genetic variations can change an individual's susceptibility to carcinogens and toxins as well as affect the toxicity and efficacy of certain drugs. Mutations of this class mu gene have been linked with a slight increase in a number of cancers, likely due to exposure with environmental toxins. Alternative splicing results in multiple transcript variants.

Specifications:

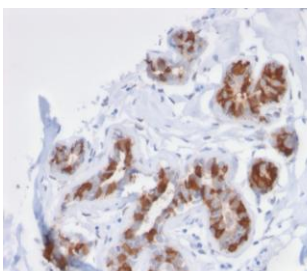
Clone: MD108
 Source: Mouse
 Isotype: IgG2a/k
 Reactivity: Human
 Immunogen: Recombinant human full-length GSTM3 protein
 Localization: Cytoplasm
 Formulation: Purified antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN₃).
 Storage: Store at 2°- 8°C
 Applications: IHC
 Package:

| Description | Catalog No. | Size |
|--------------------|-------------|------|
| GSTM3 Concentrated | MC0408 | 1 ml |
| GSTM3 Prediluted | MC0408RTU7 | 7 ml |

IHC Procedure*:

Positive Control Tissue: Kidney, brain, testis, HeLa cell lysates
 Concentrated Dilution: 50-200
 Pretreatment: Tris EDTA pH9.0, 15 minutes Pressure Cooker or 30-60 minutes water bath at 95°-99°C
 Incubation Time and Temp: 30-60 minutes @ RT
 Detection: Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.



FFPE human breast carcinoma stained with anti-GSTM3 using DAB

References:

1. Glutathione Conjugation at the Blood-CSF Barrier Efficiently Prevents Exposure of the Developing Brain Fluid Environment to Blood-Borne Reactive Electrophilic Substances. Kratzer I, et al. J Neurosci 38:3466-3479, 2018.
2. Integrated transcriptomic and proteomic analyses uncover regulatory roles of Nrf2 in the kidney. Shelton LM, et al. Kidney Int 88:1261-1273, 2015.