

Anti-GST3 Antibody [11D5-R] - BSA and Azide free

HA610147



Product Type:	Recombinant Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human
Applications:	WB, IF-Cell, IHC-P
Molecular Wt:	Predicted band size: 23 kDa
Clone number:	11D5-R

Description: Glutathione S-transferases (GSTs) are a family of enzymes that play an important role in detoxification by catalyzing the conjugation of many hydrophobic and electrophilic compounds with reduced glutathione. Based on their biochemical, immunologic, and structural properties, the soluble GSTs are categorized into 4 main classes: alpha, mu, pi, and theta. This GST family member is a polymorphic gene encoding active, functionally different GSTP1 variant proteins that are thought to function in xenobiotic metabolism and play a role in susceptibility to cancer, and other diseases. In response to oxidative stress, upregulation of the GST family member GSTP1 occurs, consistent with this function. Furthermore, the GSTP1 gene is subject to CpG island hypermethylation, a state that correlates with human prostatic carcinogenesis. GSTP1 gene hypermethylation can be detected in urine, ejaculate and plasma from men with prostate cancer, potentially making GSTP1 a useful biomarker for prostate cancer screening.

Immunogen: Recombinant protein within Human GST3 aa 1-183 / 210.

Positive control: HeLa cell lysate, HEK-293 cell lysate, MDA-MB-231 cell lysate, HT-29 cell lysate, Jurkat cell lysate, K-562 cell lysate, JAR cell lysate, human brain tissue lysate, human lung tissue lysate, HT-29, human testis tissue, human kidney tissue, human lung cancer tissue.

Subcellular location: Nucleus, Cytoplasm, Mitochondrion.

Database links: SwissProt: P09211 Human

Recommended Dilutions:

WB	1:2,000
IF-Cell	1:100
IHC-P	1:5,000

Storage Buffer: 1*PBS (pH7.4).

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

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Orders:0086-571-88062880

Technical:0086-571-89986345

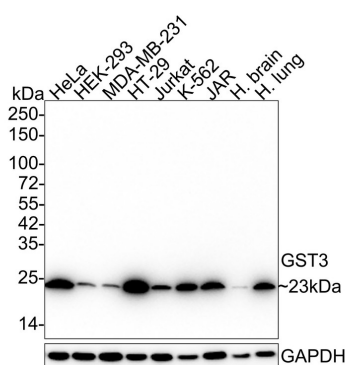
Service mail:support@huabio.cn

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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

Images

Fig1: Western blot analysis of GST3 on different lysates with Mouse anti-GST3 antibody (HA610147) at 1/2,000 dilution.



Lane 1: HeLa cell lysate
 Lane 2: HEK-293 cell lysate
 Lane 3: MDA-MB-231 cell lysate
 Lane 4: HT-29 cell lysate
 Lane 5: Jurkat cell lysate
 Lane 6: K-562 cell lysate
 Lane 7: JAR cell lysate
 Lane 8: Human brain tissue lysate
 Lane 9: Human lung tissue lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 23 kDa

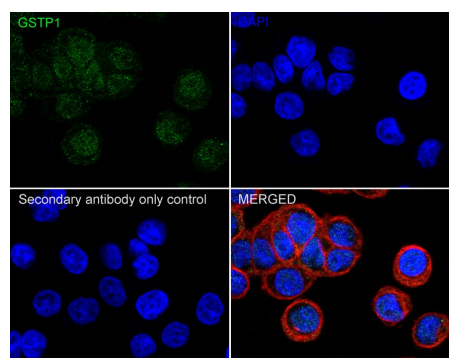
Observed band size: 23 kDa

Exposure time: 1 minute 2 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA610147) at 1/2,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Anti-Mouse IgG for IP Nano-secondary antibody (NBI02H) at 1/5,000 dilution was used for 1 hour at room temperature.

Fig2: Immunocytochemistry analysis of HT-29 cells labeling GST3 with Mouse anti-GST3 antibody (HA610147) at 1/100 dilution.



Cells were fixed in 4% paraformaldehyde for 20 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 5 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Mouse anti-GST3 antibody (HA610147) at 1/100 dilution in 1% BSA in PBST overnight at 4 °C. Goat Anti-Mouse IgG H&L (iFluor™ 488, HA1125) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

beta Tubulin (ET1602-4, red) was stained at 1/100 dilution overnight at +4°C. Goat Anti-Rabbit IgG H&L (iFluor™ 594, HA1122) were used as the secondary antibody at 1/1,000 dilution.

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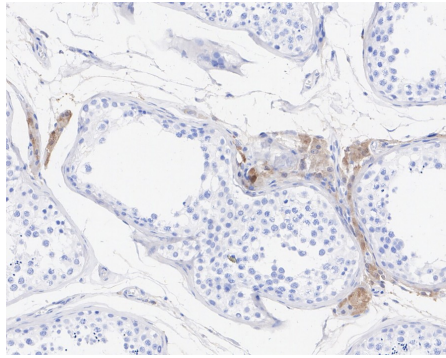


Fig3: Immunohistochemical analysis of paraffin-embedded human testis tissue with Mouse anti-GST3 antibody (HA610147) at 1/5,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA610147) at 1/5,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

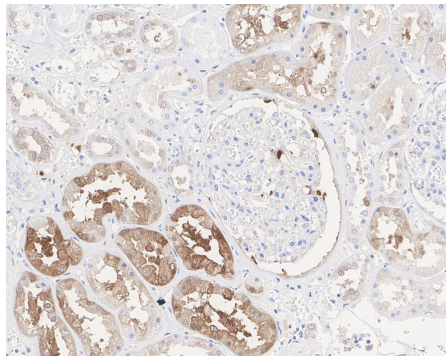


Fig4: Immunohistochemical analysis of paraffin-embedded human kidney tissue with Mouse anti-GST3 antibody (HA610147) at 1/5,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA610147) at 1/5,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

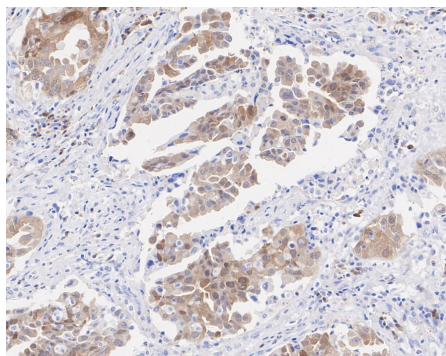


Fig5: Immunohistochemical analysis of paraffin-embedded human lung cancer tissue with Mouse anti-GST3 antibody (HA610147) at 1/5,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA610147) at 1/5,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Fig6: Western blot analysis of GST3 on different lysates with Mouse anti-GST3 antibody (HA610147) at 1/1,000 dilution.

Lane 1: HCT 116-si NT cell lysate

Lane 2: HCT 116-si GST3 cell lysate

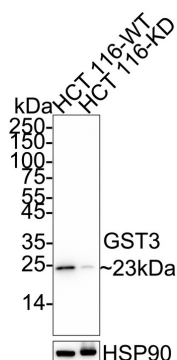
Lysates/proteins at 10 µg/Lane.

Predicted band size: 23 kDa

Observed band size: 23 kDa

Exposure time: 3 seconds; ECL: K1801;

4-20% SDS-PAGE gel.



Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA610147) at 1/1,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1/50,000 dilution was used for 1 hour at room temperature.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Sun K H et al. Glutathione-S-transferase P1 is a critical regulator of Cdk5 kinase activity. J Neurochem 118:902-914 (2011).
2. Kong K H et al. Tyrosine-7 in human class Pi glutathione S-transferase is important for lowering the pKa of the thiol group of glutathione in the enzyme-glutathione complex. Biochem Biophys Res Commun 184:194-197 (1992).

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