

Anti-GST3/GST pi/Gstp1 Antibody Picoband™

Catalog Number: A00394

About Gstp1

Glutathione S-transferases pi (GSTP1), also known as GST3, is an enzyme that in humans is encoded by the GSTP1 gene. This gene is mapped to 11q13.2. GSTP1 has 7 exons and 6 introns contained within approximately 2.8 kilobases. GSTP1 belongs to Glutathione S-transferases (GSTs) which 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. GSTP1 presents in all tissues and cells, with the exception of red cells, in which only erythrocyte GST (GSTe) is observed. What's more, GSTP1 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.

Overview

Product Name	Anti-GST3/GST pi/Gstp1 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-GST3/GST pi/Gstp1 Antibody Picoband™ catalog # A00394. Tested in ELISA, IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Gstp1: P19157

Technical Details

Immunogen	E. coli-derived mouse GST3 / GST pi recombinant protein (Position: P2-Q210).
Predicted Reactive Species	Chicken
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized

Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.1-0.5ug/ml</p> <p>Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml</p> <p>Direct ELISA, 0.1-0.5ug/ml</p>

Anti-GST3/GST pi/Gstp1 Antibody Picoband™ (A00394) Images

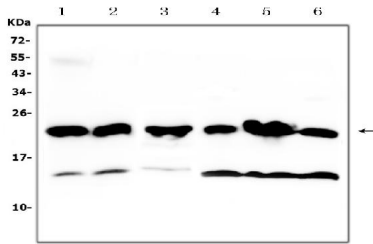


Figure 1. Western blot analysis of GST3 / GST pi using anti-GST3 / GST pi antibody (A00394). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: mouse lung tissue lysates,
Lane 2: mouse testis tissue lysates,
Lane 3: rat spleen tissue lysates,
Lane 4: human A549 whole cell lysates,
Lane 5: human placenta tissue lysates,
Lane 6: human Hela whole cell lysates.
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-GST3 / GST pi antigen affinity purified polyclonal antibody (Catalog # A00394) at 0.5 ug/mL overnight at 4 then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for GST3 / GST pi at approximately 23KD. The expected band size for GST3 / GST pi is at 23KD.

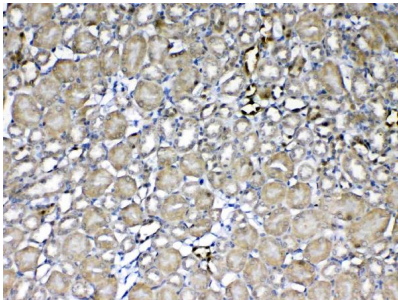


Figure 2. IHC analysis of GST3 / GST pi using anti-GST3 / GST pi antibody (A00394). GST3 / GST pi was detected in paraffin-embedded section of mouse kidney tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-GST3 / GST pi Antibody (A00394) overnight at 4 Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

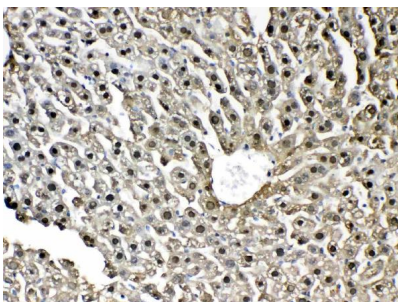


Figure 3. IHC analysis of GST3 / GST pi using anti-GST3 / GST pi antibody (A00394). GST3 / GST pi was detected in paraffin-embedded section of mouse liver tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-GST3 / GST pi Antibody (A00394) overnight at 4 Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

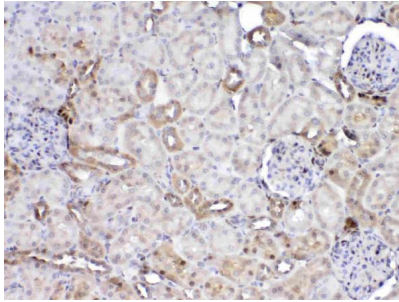


Figure 4. IHC analysis of GST3 / GST pi using anti-GST3 / GST pi antibody (A00394).

GST3 / GST pi was detected in paraffin-embedded section of rat kidney tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-GST3 / GST pi Antibody (A00394) overnight at 4 Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

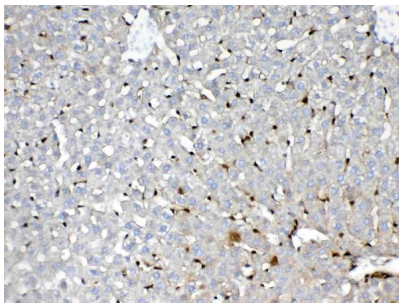


Figure 5. IHC analysis of GST3 / GST pi using anti-GST3 / GST pi antibody (A00394).

GST3 / GST pi was detected in paraffin-embedded section of rat liver tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-GST3 / GST pi Antibody (A00394) overnight at 4 Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

6 Publications Citing This Product

1. PubMed ID: 10.1155/2021/9142364, Potential Role of GST-pi in Lung Cancer Stem Cell Cisplatin Resistance
2. PubMed ID: -, Songsong Wang,Xiao Xiao,Ao Li,Peng Li,"The Herbal Constituents in An-Gong-Niu-Huang Wan (AGNH) Protect against Cinnabar- and Realgar-Induced Hepatorenal Toxicity and Accumulations of Mercury and Arsenic in Mice",Evidence-Based Complementary and Alternative Medicine,vol.2021,Article ID 5566078,9 pages,2021.<https://doi.org/10.1155/2021/5566078>
3. PubMed ID: 26261505, Enhanced expression of stem cell markers and drug resistance in sphere-forming non-small cell lung cancer cells.

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