

Anti-GST3/GST pi/GSTP1 Antibody

Catalog Number: PA1040

About GSTP1

Glutathione S-transferases pi, also known as GST3, present in all tissues and cells, with the exception of red cells, in which only erythrocyte GST (GSTe) is observed. The GST-pi gene has 7 exons and 6 introns contained within approximately 2.8 kilobases. The GST-pi gene is mapped to chromosome 11. Placental glutathione-S-transferase-pi mRNA is abundantly expressed in human skin. GSTP does not contribute in vivo to the formation of glutathione conjugates of acetaminophen but plays a novel and unexpected role in the toxicity of this compound.

Overview

Product Name	Anti-GST3/GST pi/GSTP1 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-GST3/GST pi/GSTP1 Antibody catalog # PA1040. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
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	P09211

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human GST3, different from the related mouse sequence by two amino acids.
Predicted Reactive Species	Horse
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, Human, Mouse, Rat</p> <p>Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human</p>

Anti-GST3/GST pi/GSTP1 Antibody (PA1040) Images

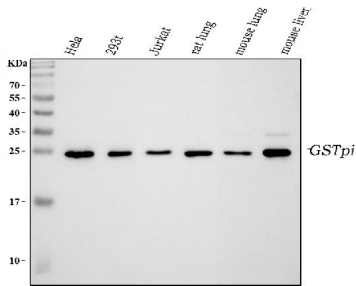


Figure 1. Western blot analysis of GSTP1 using anti-GSTP1 antibody (PA1040).

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 30 ug of sample under reducing conditions.

Lane 1: human Hela whole cell lysates,
Lane 2: human 293T whole cell lysates,
Lane 3: human Jurkat whole cell lysates,
Lane 4: rat lung tissue lysates,
Lane 5: mouse lung tissue lysates,
Lane 6: mouse liver tissue lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-GSTP1 antigen affinity purified polyclonal antibody (Catalog # PA1040) at 0.5 ug/mL overnight at 4°C, 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 1:5000 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 GSTP1 at approximately 23 kDa. The expected band size for GSTP1 is at 23 kDa.

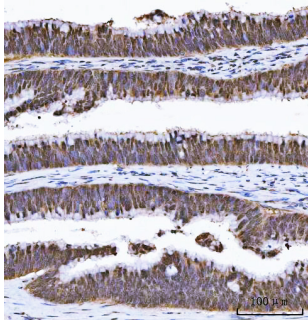


Figure 2. IHC analysis of GSTP1 using anti-GSTP1 antibody (PA1040).

GSTP1 was detected in a paraffin-embedded section of human highly differentiated adenocarcinoma of the colon tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-GSTP1 Antibody (PA1040) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

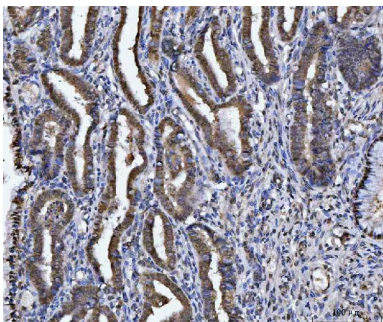


Figure 3. IHC analysis of GSTP1 using anti-GSTP1 antibody (PA1040).

GSTP1 was detected in a paraffin-embedded section of human moderately differentiated adenocarcinoma of the cervical canal tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-GSTP1 Antibody (PA1040) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with

DAB as the chromogen.

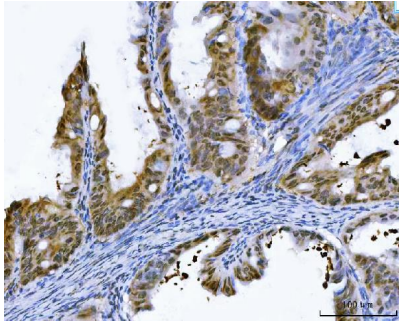


Figure 4. IHC analysis of GSTP1 using anti-GSTP1 antibody (PA1040). GSTP1 was detected in a paraffin-embedded section of human ovarian cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-GSTP1 Antibody (PA1040) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

5 Publications Citing This Product

1. PubMed ID: 10.1111/jocd.13501, Expressions of glutathione S-transferase alpha, mu, pi, and theta in the skin samples of patients with acne rosacea
2. PubMed ID: 26261505, Enhanced expression of stem cell markers and drug resistance in sphere-forming non-small cell lung cancer cells.
3. PubMed ID: 25834438, Yang P, Gao Z, Zhang H, Fang Z, Wu C, Xu H, Huang Qj. Neuropsychiatr Dis Treat. 2015 Mar 6;11:597-607. Doi: 10.2147/Ndt.S78131. Ecollection 2015. Changes In Proinflammatory Cytokines And White Matter In Chronically Stressed Rats.

Visit bosterbio.com/anti-gst3-gst-pi-antibody-pa1040-boster.html to see all 5 publications.

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