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GSTP1 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5260

Product Information

Application	IF, FC, WB
Primary Accession	P09211
Reactivity	Human, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	23356
Isotype	Rabbit IgG
Antigen Source	HUMAN

Additional Information

Gene ID	2950
Antigen Region	165-192
Other Names	GSTP1; FAEES3; GST3; Glutathione S-transferase P; GST class-pi; GSTP1-1
Dilution	IF~~1:10~50 FC~~1:10~50 WB~~ 1:1000
Target/Specificity	This GSTP1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 165-192 amino acids from the C-terminal region of human GSTP1.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	GSTP1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GSTP1 (HGNC:4638)
Synonyms	FAEES3, GST3
Function	Catalyzes conjugation of reduced glutathione to a wide number of exogenous and endogenous hydrophobic electrophiles (PubMed:1540159,

PubMed:1567427, PubMed:8433974). Involved in the formation of glutathione conjugates of both prostaglandin A2 (PGA2) and prostaglandin J2 (PGJ2) (PubMed:9084911). Participates in the formation of novel hepoxilin regioisomers (PubMed:21046276). Acts as a negative regulator of ferroptosis by mediating glutathione conjugation and detoxification of 4-hydroxynonenal (4-HNE) reactive aldehyde (PubMed:38016474). Negatively regulates CDK5 activity via p25/p35 translocation to prevent neurodegeneration (PubMed:21668448).

Cellular Location

Cytoplasm. Mitochondrion. Nucleus. Note=The 83 N-terminal amino acids function as un uncleaved transit peptide, and arginine residues within it are crucial for mitochondrial localization

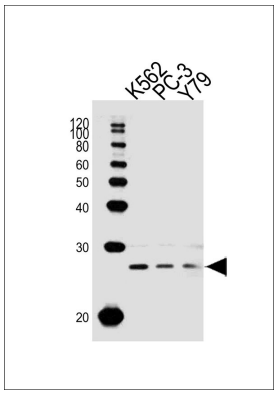
Background

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.

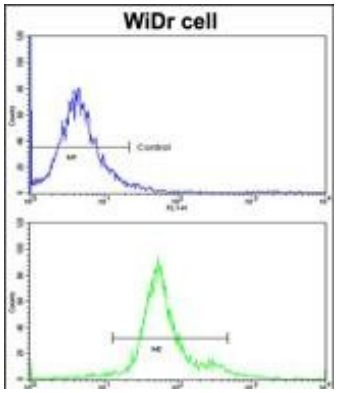
References

Spurdle,A.B., et.al., Breast Cancer Res. Treat. (2009)
Agusa,T., et.al., Toxicol. Appl. Pharmacol. (2009)

Images

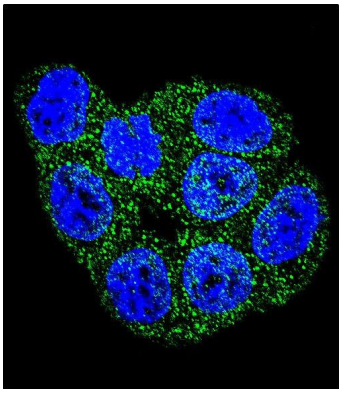


Western blot analysis of lysates from K562,PC-3,Y79 cell line (from left to right), using GSTP1 Antibody (C-term)(Cat. #AW5260). AW5260 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.



Flow cytometric analysis of widr cells using GSTP1 Antibody (C-term)(bottom histogram) compared to a negative control cell (top histogram)FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Confocal immunofluorescent analysis of GSTP1 Antibody (C-term)(Cat#AW5260) with Hela cell followed by Alexa



Fluor 488-conjugated goat anti-rabbit lgG (green). DAPI was used to stain the cell nuclear (blue).