

PRODUCT INFORMATION

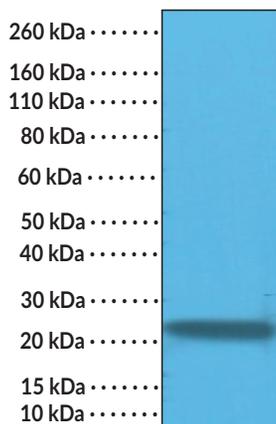
GST3/GST-Pi (C-Term) Rabbit Monoclonal Antibody (Clone RM347)

Item No. 32279

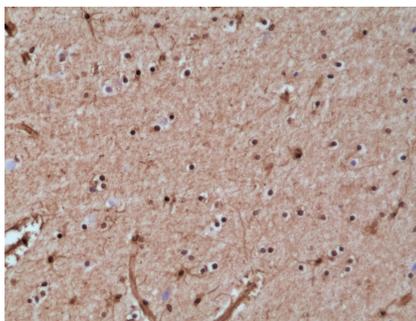
Overview and Properties

Contents:	This vial contains 100 µl of protein A-affinity purified monoclonal antibody.
Synonyms:	e-GST, Glutathione-S-Transferase Pi-1, GST3, GST-Pi, GSTP1-1
Immunogen:	Peptide from the C-terminal region of human GST3
Cross Reactivity:	(+) GST3
Species Reactivity:	(+) Human
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
Clone:	RM347
Host:	Rabbit
Isotype:	IgG
Applications:	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:1,000-1:20,000 for IHC and 1:1,000-1:2,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

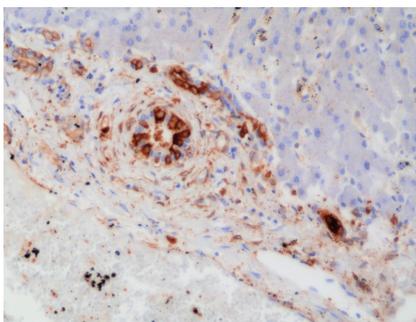
Images



WB of HeLa cell lysate using GST3/GST-Pi (C-Term) Rabbit Monoclonal Antibody (Clone RM347) at a 1:1,000 dilution.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human brain tissue using GST3/GST-Pi (C-Term) Rabbit Monoclonal Antibody (Clone RM347) at a 1:20,000 dilution.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human liver tissue using GST3/GST-Pi (C-Term) Rabbit Monoclonal Antibody (Clone RM347) at a 1:20,000 dilution.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

Glutathione S-transferase 3 (GST3), also known as GST-Pi, is an enzyme that catalyzes the conjugation of glutathione (GSH) to the electrophilic center of various phase I toxic xenobiotic metabolites, facilitating their excretion by phase III membrane channels, transporters, and pumps.¹ It functions as a homodimer, with each monomer containing an N-terminal GSH-binding domain and a C-terminal domain with a hydrophobic cavity (H-site) for toxic compound binding. GST3 is expressed primarily in erythrocytes, as well as in the brain, heart, lung, testis, skin, kidney, pancreas, and saliva. GST3 dimers can bind a nitric oxide (NO) carrier, such as S-nitrosoglutathione or dinitrosyl-diglutathionyl-iron complex (DNDGIC), with one active site, indicating a role in the storage and transport of NO, while maintaining detoxification activity in the second active site.² Expression of *GSTP1*, the gene encoding GST3, is increased in patients with advanced-stage chronic kidney disease. *GSTP1* polymorphisms are associated with increased risk of Parkinson's disease following exposure to cigarette smoke or pesticides, as well as with amyotrophic lateral sclerosis. Cayman's GST3/GST-Pi (C-Term) Rabbit Monoclonal Antibody (Clone RM347) can be used for immunohistochemistry (IHC) and Western blot (WB) applications.

References

1. Bocedi, A., Noce, A., Marrone, G., *et al.* Glutathione Transferase P1-1 an enzyme useful in biomedicine and as biomarker in clinical practice and in environmental pollution. *Nutrients* **11(8)**, 1741 (2019).
2. Lo Bello, M., Nuccetelli, M., Caccuri, A.M., *et al.* Human glutathione transferase P1-1 and nitric oxide carriers: A new role for an old enzyme. *J. Biol. Chem.* **276(45)**, 42138-42145 (2001).

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