

## ARG41400 anti-GPX4 antibody

Package: 100 µl  
Store at: -20°C

### Summary

Product Description	Rabbit Polyclonal antibody recognizes GPX4
Tested Reactivity	Hu, Ms, Rat
Tested Application	ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	GPX4
Species	Human
Immunogen	Synthetic peptide derived from Human GPX4.
Conjugation	Un-conjugated
Alternate Names	Phospholipid hydroperoxide glutathione peroxidase, mitochondrial; EC 1.11.1.12; MCSP; PHGPx; GSHPx-4; Glutathione peroxidase 4; GPx-4; snPHGPx; snGPx

### Application Instructions

Application table	Application	Dilution
	ICC/IF	1:50 - 1:200
	IHC-P	1:50 - 1:200
	WB	1:500 - 1:2000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Observed Size	~ 20 kDa	

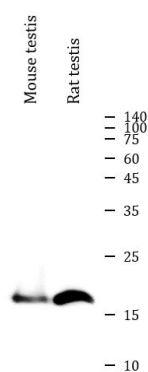
### Properties

Form	Liquid
Purification	Affinity purified.
Buffer	PBS (pH 7.4), 150 mM NaCl, 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

## Bioinformation

Gene Symbol	GPX4
Gene Full Name	glutathione peroxidase 4
Background	This gene encodes a member of the glutathione peroxidase protein family. Glutathione peroxidase catalyzes the reduction of hydrogen peroxide, organic hydroperoxide, and lipid peroxides by reduced glutathione and functions in the protection of cells against oxidative damage. Human plasma glutathione peroxidase has been shown to be a selenium-containing enzyme and the UGA codon is translated into a selenocysteine. The encoded protein has been identified as a moonlighting protein based on its ability to serve dual functions as a peroxidase as well as a structural protein in mature spermatozoa. Through alternative splicing and transcription initiation, rat produces proteins that localize to the nucleus, mitochondrion, and cytoplasm. In humans, alternative transcription initiation and the cleavage sites of the mitochondrial and nuclear transit peptides need to be experimentally verified. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2014]
Function	Protects cells against membrane lipid peroxidation and cell death. Required for normal sperm development and male fertility. Could play a major role in protecting mammals from the toxicity of ingested lipid hydroperoxides. Essential for embryonic development. Protects from radiation and oxidative damage (By similarity). [UniProt]
Highlight	Related Antibody Duos and Panels: <a href="#">ARG30337 Ferroptosis / Oxytosis Antibody Panel</a> Related products: <a href="#">GPX4 antibodies</a> ; <a href="#">GPX4 Duos / Panels</a> ; <a href="#">Anti-Rabbit IgG secondary antibodies</a> ; Related news: <a href="#">Ferroptosis/Oxytosis Antibody Panel is launched</a> <a href="#">Therapeutic strategies against PDAC</a>
Research Area	Ferroptosis/Oxytosis Study antibody
Calculated Mw	22 kDa (mitochondrial) 20 kDa (cytoplasmic)
Cellular Localization	Isoform Mitochondrial: Mitochondrion. Isoform Cytoplasmic: Cytoplasm. [UniProt]

## Images



ARG41400 anti-GPX4 antibody WB image

Western blot: 20 µg of Mouse testis and Rat testis lysates stained with ARG41400 anti-GPX4 antibody at 1:1000 dilution.

**GPX4**



**21 kDa**

ARG41400 anti-GPX4 antibody WB image

**β-actin**



**42 kDa**

Western blot: Mouse Testis stained with ARG41400 anti-GPX4 antibody at 1:1000 dilution.

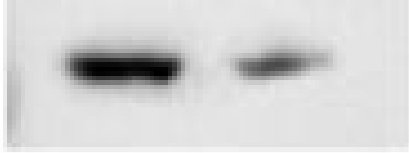
**PM<sub>2.5</sub>**

**0 50 100 200 (µg/ml)**

From Lipeng Li et al. Ecotoxicol Environ Saf (2023), [doi: 10.1016/j.ecoenv.2023.115309](https://doi.org/10.1016/j.ecoenv.2023.115309), Fig. 2F1.

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**GPX4**



ARG41400 anti-GPX4 antibody WB image

Western blot: GBC-SD cells stained with ARG41400 anti-GPX4 antibody.

From Desen Fan et al. Heliyon (2024), [doi: 10.1016/j.heliyon.2024.e30260](https://doi.org/10.1016/j.heliyon.2024.e30260), Fig. 2. E.

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