

Datasheet for 600-401-A29

Selenoprotein W Antibody**Overview**

Description:	Anti-Selenoprotein W (RABBIT) Antibody - 600-401-A29
Item No.:	600-401-A29
Size:	100 µg
Applications:	ELISA, WB, IHC
Reactivity:	Mouse
Host Species:	Rabbit

Product Details

Background:	This antibody is designed, produced, and validated as part of a collaboration between Rockland and the National Cancer Institute (NCI) and is suitable for Cancer, Immunology and Nuclear Signaling research. Selenoprotein W was first purified and characterized from rat skeletal muscle. The function of selenoprotein W is not entirely clear, but the presence of the bound glutathione moiety indicates that SelW is thought to function in oxidation–reduction catalysis and may play a role in selenium deficiency disorders such as white muscle disease in sheep and Keshan disease in humans. Recently, overexpression of SelW was shown to be glutathione dependent and was shown to markedly reduce the sensitivity of cell lines to H2O2 cytotoxicity.
Synonyms:	rabbit anti-Selenoprotein W antibody, Rabbit anti-SelW antibody, Selenow, Sepw1
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	Selenow
Reactivity:	Mouse
Immunogen Type:	Recombinant Protein
Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a recombinant protein corresponding to full-length mouse SelW protein.

Purity/Specificity: This product was affinity purified from monospecific antiserum by immunoaffinity chromatography. This antibody is specific for mouse Selenoprotein W. A BLAST analysis was used to suggest cross-reactivity with SelW from rat based on a 98% homology with the immunizing sequence. Partial reactivity is expected against human-derived SelW based on an 87% homology with the immunogen. Cross-reactivity with SelW from other sources has not been determined.

Relevant Links:

- [UniProtKB - P63300](#)
- [NCBI - 2384723](#)
- [GeneID - 20364](#)

Application Details

Tested Applications: ELISA, WB

Suggested Applications: IHC (Based on references)

Application Note: This affinity purified antibody has been tested for use in ELISA and western blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 9.6 kDa in size corresponding to SelW by western blotting in the appropriate cell lysate or extract. This antibody is capable of detecting both overexpressed and endogenous SelW.

Assay Dilutions: All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.

ELISA: 1:100,000

IP: 1:100

WB: 1:1,000 - 1:5,000

Formulation

Physical State: Liquid (sterile filtered)

Concentration: 1.0 mg/mL by UV absorbance at 280 nm

Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Preservative: 0.01% (w/v) Sodium Azide

Stabilizer: None

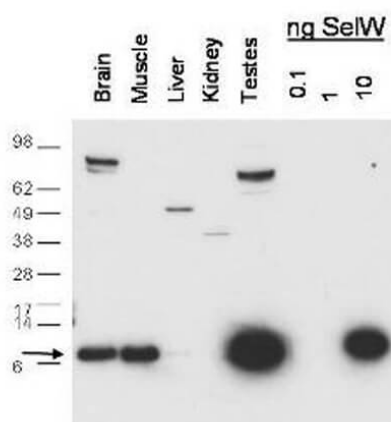
Shipping & Handling

Shipping Condition: Dry Ice

Storage Condition: Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Expiration: Expiration date is one (1) year from date of receipt.

Images

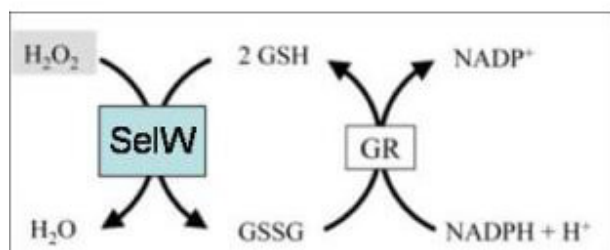


Western Blot

Western blot using Rockland's anti-SelW antibody shows detection of endogenous SelW in mouse brain, muscle and testes lysates. Recombinant SelW is also detected at 10 ng (right lanes). The arrow corresponds with SelW protein at 9.6 kDa. The primary antibody was used at a 1:1000 dilution. Personal Communication, D. Hatfield, NCI, Bethesda, MD.

Pathway

Proposed pathway for Selenoprotein W function.



References

- Situ, J et al. Comparative Proteomic Analysis Reveals the Effect of Selenoprotein W Deficiency on Oligodendrogenesis in Fear Memory. *Antioxidants (Basel, Switzerland)* (2022)
- Kang D et al. Selenophosphate synthetase 1 deficiency exacerbates osteoarthritis by dysregulating redox homeostasis. *Nat Commun.* (2022)
- Schwarz M et al. Copper interferes with selenoprotein synthesis and activity. *Redox Biol.* (2020)

Disclaimer

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