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Datasheet for 600-401-A29S

Selenoprotein W Antibody

Overview

Description:	Anti-Selenoprotein W (RABBIT) Antibody - 600-401-A29S
Item No.:	600-401-A29S
Size:	25 µL
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
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:	1:2,500 - 1:10,000
IHC:	1:100 - 1:1,000
IP:	1:100
WB:	1:500 - 1:2,000

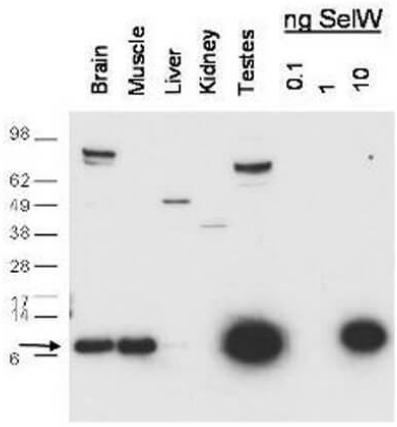
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.3 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

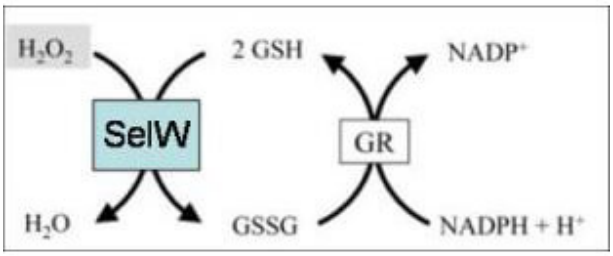
Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Expiration:	Expiration date is three (3) months 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)
- Schwarz M et al. Copper interferes with selenoprotein synthesis and activity. *Redox Biol.* (2020)

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