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Datasheet for 600-401-A70

Damage Related Autophagy Modulator Antibody

Overview

Description:	Anti-Damage Related Autophagy Modulator (RABBIT) Antibody - 600-401-A70
Item No.:	600-401-A70
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	Damage-regulated autophagy modulator (DRAM) is a p53 target gene encoding a lysosomal protein that induces autophagy, a process that degrades cytosolic proteins and organelles. It has been suggested that activation of DRAM by p53 is simultaneous to the activation by p53 of one or more proapoptotic genes such as PUMA, Bax, etc., and that the signaling pathways regulated by these genes together promote a full cell death response. By itself, DRAM cannot induce apoptosis, but the fact that it is inactivated in certain cancers highlights the importance of DRAM and suggests that autophagy may play a more important role in cancer than initially suspected. At least two different isoforms of DRAM are known to exist.
Synonyms:	DRAM antibody, FLJ11259 antibody, DNA damage-regulated autophagy modulator protein 1, Damage-regulated autophagy modulator, DRAM1
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	DRAM1
Reactivity:	Human, Mouse, Rat
Immunogen Type:	Conjugated Peptide

Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to a region near the amino terminus of human DRAM protein.
Purity/Specificity:	This affinity purified antibody is directed against human DRAM protein. The product was affinity purified from monospecific antiserum by immunoaffinity chromatography. This antibody reacts with DRAM from human, mouse and rat sources. Reactivity with DRAM from other sources has not been determined.
Relevant Links:	• UniProtKB - Q8N682 • NCBI - NP_060840.2 • GeneID - 55332

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	This affinity purified antibody has been tested for use in ELISA, immunofluorescence, immunohistochemistry, and western blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band at ~33 kDa in size corresponding to DRAM by western blotting in the appropriate cell lysate or extract. K562 cell lysate can be used as positive control.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000 - 1:40,000
FC:	20 µg/mL
IF:	User Optimized
WB:	0.5 - 2 µg/ml

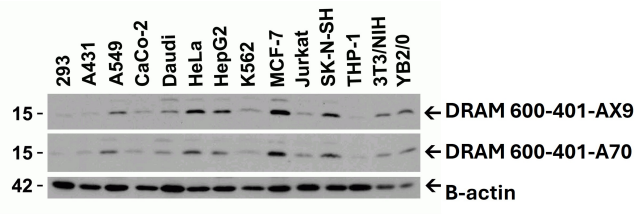
Formulation

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:	0.02% (w/v) Sodium Azide
Stabilizer:	None

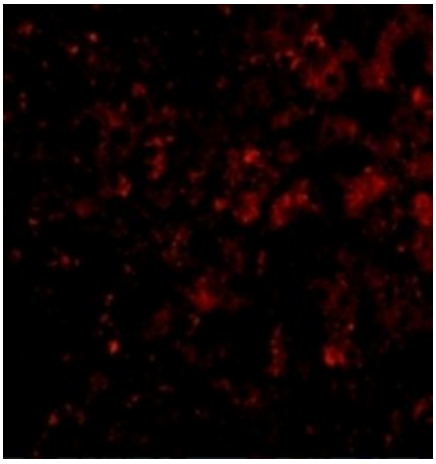
Shipping & Handling

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.

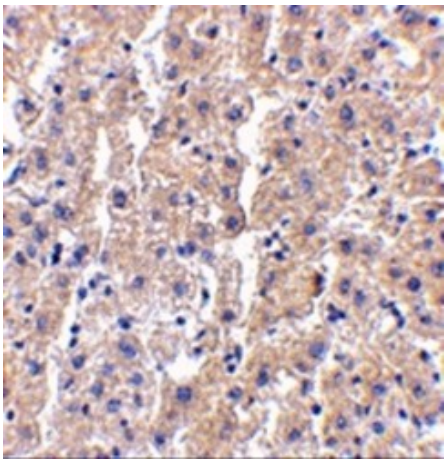
Images



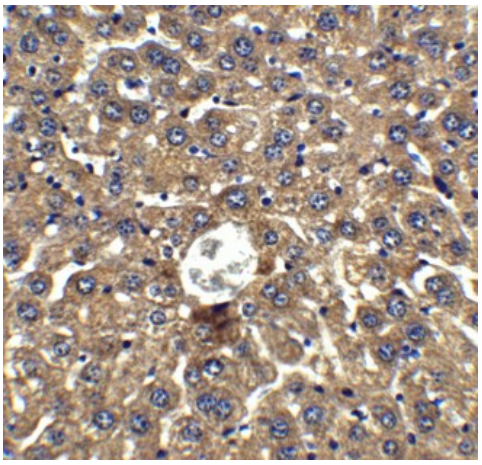
Western Blot
Western Blot using DRAM1. Loading: 15 µg of lysates per lane. Antibodies: DRAM p/n 600-401-AX9 (0.5 µg/mL), DRAM p/n 600-401-A70 (2 µg/mL), beta-actin (1 µg/mL), 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



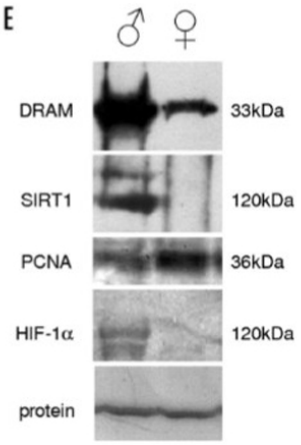
Immunofluorescence Microscopy
Immunofluorescence Validation of DRAM. Immunofluorescent analysis of 4% paraformaldehyde-fixed human liver tissue labeling DRAM at 20 µg/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (red).



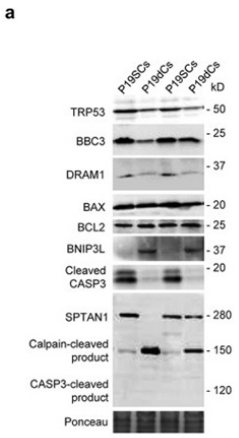
Immunohistochemistry
Immunohistochemistry Validation of DRAM1. Immunohistochemical analysis of paraffin-embedded human liver tissue using anti-DRAM antibody at 2.5 µg/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4°C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.



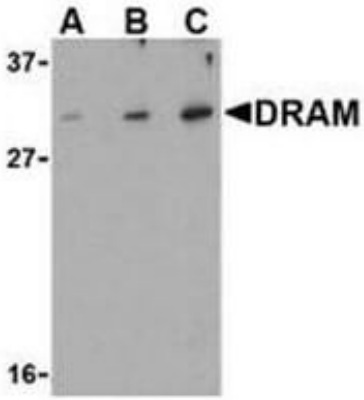
Immunohistochemistry
Immunohistochemistry Validation of DRAM. Immunohistochemical analysis of paraffin-embedded mouse liver tissue using anti-DRAM antibody at 2 µg/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4°C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.



Western Blot
(E) damage-regulated autophagy modulator (DRAM), Sirtuin 1 (SIRT1), proliferating cell nuclear antigen (PCNA) and hypoxia-inducible factor-1α(HIF-1α) showed sexual divergences in p53 regulation. The activity of these redox transcription factors had strong sexual differences. Fig 2. PMID: 19736526



Western Blot
(a) Semi-quantification of protein content by immunoblotting of TRP53, BBC3, DRAM1, BAX, BCL2, BNIP3L, cleaved CASP3 and SPTAN1 cleavage products in P19SCs and P19dCs. Bar charts show means of optical density (O.D.) ± S.D. expressed as percentage of P19SCs, from three separate experiments. Ponceau S was used for loading control. Significant p-values from Student's t-test are indicated in the graph. Fig 3. PMID: 30990357



Western Blot
Western blot using Rockland's affinity purified anti-DRAM antibody shows detection of a predominant band at ~33 kDa corresponding to DRAM (arrowhead) in K562 whole cell lysate. The predicted MW of DRAM is 26 kDa. DRAM was detected using 0.5 µg/ml (lane A), 1.0 µg/ml (lane B) and 2 µg/ml (lane C) concentrations of primary antibody.

References

- Vega-Naredo I et al. Analysis of Proapoptotic Protein Trafficking to and from Mitochondria. *Methods Mol Biol.* (2021)
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- Vega-Naredo I et al. Sexual dimorphism of autophagy in Syrian hamster Harderian gland culminates in a holocrine secretion in female glands. *Autophagy.* (2009)

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