

# Product Datasheet

## RASAL3 Antibody - BSA Free NBP2-83439-0.1ml

Unit Size: 0.1ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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**NBP2-83439-0.1ml**

RASAL3 Antibody - BSA Free

Product Information	
Unit Size	0.1ml
Concentration	0.5 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.09% Sodium Azide
Purity	Affinity purified
Buffer	PBS, 2% Sucrose

Product Description	
Description	Novus Biologicals Rabbit RASAL3 Antibody - BSA Free (NBP2-83439) is a polyclonal antibody validated for use in IHC and WB. Anti-RASAL3 Antibody: Cited in 1 publication. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	64926
Gene Symbol	RASAL3
Species	Human
Immunogen	The immunogen is a synthetic peptide directed towards the C-terminal region of human RASAL3. Peptide sequence: PRKPSVPWQRQMDQPQDRNQALGTHRPVNLKLAELQCEVAALREEQKVLRSR The peptide sequence for this immunogen was taken from within the described region.

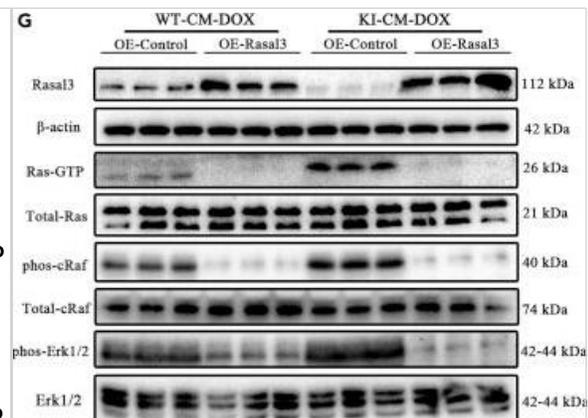
Product Application Details	
Applications	Western Blot
Recommended Dilutions	Western Blot 1.0 ug/ml

**Images**

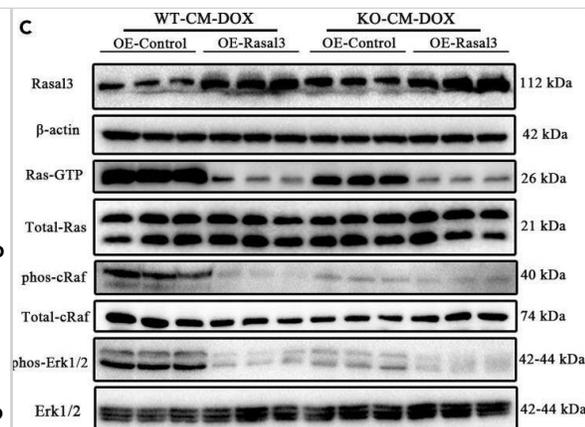
Western Blot: RASAL3 Antibody [NBP2-83439] - Host: Rabbit. Target Name: RASAL3. Sample Tissue: Human Jurkat Whole Cell lysates. Antibody Dilution: 1ug/ml



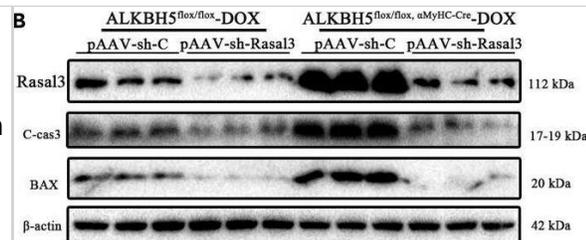
ALKBH5 exerts cardioprotective effects by promoting the Ras/Raf/Erk signaling pathway via m6A demethylation of Rasal3 mRNA(A) Representative western blots of Rasal3, Ras-GTP (active Ras), phosphorylated cRaf (phos-cRaf), and phosphorylated Erk (phos-Erk1/2) in ALKBH5-KO-CM-DOX and WT-CM-DOX after shRNA-Rasal3 knockdown.(B) Western blot analysis of Rasal3 and Ras-GTP in ALKBH5-KO-CM-DOX and WT-CM-DOX after shRNA-Rasal3 knockdown (n = 3).(C) Representative western blots of Rasal3, Ras-GTP (active Ras), phosphorylated cRaf (phos-cRaf), and phosphorylated Erk (phos-Erk1/2) in ALKBH5-KO-CM-DOX and WT-CM-DOX after OE-Rasal3 overexpression.(D) Western blot analysis of Rasal3 and Ras-GTP in ALKBH5-KO-CM-DOX and WT-CM-DOX after shRNA-Rasal3 knockdown (n = 3).(E) Representative western blots of Rasal3, Ras-GTP (active Ras), phosphorylated cRaf (phos-cRaf), and phosphorylated Erk (phos-Erk1/2) in ALKBH5-KI-CM-DOX and WT-CM-DOX after shRNA-Rasal3 knockdown.(F) Western blot analysis of Rasal3 and Ras-GTP in ALKBH5-KI-CM-DOX and WT-CM-DOX after shRNA-Rasal3 knockdown (n = 3).(G) Representative western blots of Rasal3, Ras-GTP (active Ras), phosphorylated cRaf (phos-cRaf), and phosphorylated Erk (phos-Erk1/2) in ALKBH5-KI-CM-DOX and WT-CM-DOX after OE-Rasal3 overexpression.(H) Western blot analysis of Rasal3 and Ras-GTP in ALKBH5-KI-CM-DOX and WT-CM-DOX after shRNA-Rasal3 knockdown (n = 3).(I) A proposed model showing how ALKBH5 mediates mitochondrial dysfunction to induce CM death and mitigate DIC injury. Data are depicted as the mean +/- SEM. Statistical significance was determined by Student's t test or one-way ANOVA or two-way ANOVA with a post-hoc Holm-Sidak test. Here, ns, not significant; □ p < 0.05; □□ p < 0.05; □□□ p < 0.001; □□□□ p < 0.0001. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/36876119>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



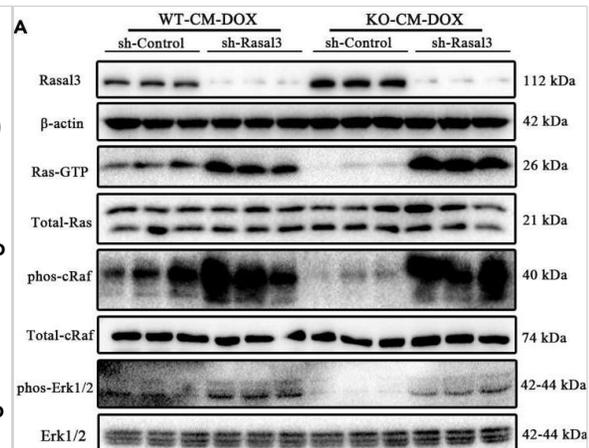
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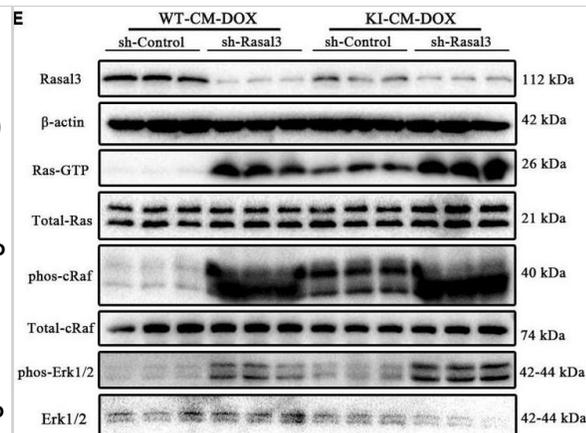
Adenovirus knockdown of Rasal3 can antagonize the effect of ALKBH5 and alleviate myocardial DIC injury (A) Kaplan-Meier survival curves showing the survival of DOX-stressed mice in ALKBH5<sup>flox/flox</sup> and ALKBH5<sup>flox/flox</sup>,  $\alpha$ -MyHC-Cre after pAAV-shRNA-Rasal3 knockdown (n = 20). (B) Representative western blots of Rasal3, cleaved caspase-3, and BAX in ALKBH5<sup>flox/flox</sup> and ALKBH5<sup>flox/flox</sup>,  $\alpha$ -MyHC-Cre after pAAV-shRNA-Rasal3 knockdown (n = 3). (C) Apoptosis measured by TUNEL staining in ALKBH5<sup>flox/flox</sup> and ALKBH5<sup>flox/flox</sup>,  $\alpha$ -MyHC-Cre heart sections (Bar = 80  $\mu$ m). (D) Western blot analysis of cleaved caspase-3 and BAX in ALKBH5-KO-CM-DOX and WT-CM-DOX after shRNA-Rasal3 knockdown (n = 3). (E and G) Flow cytometric detection of mitochondrial membrane potential JC-1 in myocardial tissue of with or without adenovirus knockdown of Rasal3 in ALKBH5<sup>flox/flox</sup> and ALKBH5<sup>flox/flox</sup>,  $\alpha$ -MyHC-Cre mice (n = 4). (F and H) JC-1 changes resulting from shRNA-Rasal3 knockdown in ALKBH5-KO-CM and WT-CM (n = 6). (I) ATP production of myocardial tissue with or without DOX treatment in ALKBH5<sup>flox/flox</sup> and ALKBH5<sup>flox/flox</sup>,  $\alpha$ -MyHC-Cre mice (n > 6). (J) OCRs changes of cardiomyocytes with or without adenovirus knockdown of Rasal3 in ALKBH5<sup>flox/flox</sup> and ALKBH5<sup>flox/flox</sup>,  $\alpha$ -MyHC-Cre mice. (K) Statistical analysis of basal respiration with or without adenovirus knockdown of Rasal3 in ALKBH5<sup>flox/flox</sup> and ALKBH5<sup>flox/flox</sup>,  $\alpha$ -MyHC-Cre mice (n > 6). Data are depicted as the mean  $\pm$  SEM. Statistical significance was determined by Student's t test or one-way ANOVA or two-way ANOVA with a post-hoc Holm-Sidak test. Here, ns, not significant;  $\square$  p < 0.05;  $\square\square$  p < 0.05;  $\square\square\square$  p < 0.001;  $\square\square\square\square$  p < 0.0001. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/36876119>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



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## Publications

Gao R, Yang K, Qu Y et al. m6A demethylase ALKBH5 attenuates doxorubicin-induced cardiotoxicity via posttranscriptional stabilization of Rasal3 iScience 2023-03-01 [PMID: 36876119] (IHC, Mouse)



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General: novus@novusbio.com

### **Products Related to NBP2-83439-0.1ml**

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NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-30891PEP	RASAL3 Recombinant Protein Antigen

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### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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