

# Product Datasheet

## Septin-12 Antibody - Azide and BSA Free H00124404-B01P

Unit Size: 0.05 mg

Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

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**H00124404-B01P**

Septin-12 Antibody - Azide and BSA Free

| Product Information |  |
|---------------------|--|
| Unit Size           | 0.05 mg  |
| Concentration       | Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services. |
| Storage             | Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.   |
| Clonality           | Polyclonal   |
| Preservative        | No Preservative  |
| Isotype             | IgG  |
| Purity              | Protein A purified   |
| Buffer              | PBS (pH 7.4)   |

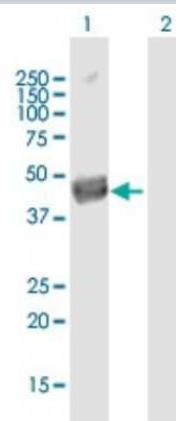
| Product Description     |   |
|-------------------------|---|
| Host                    | Mouse   |
| Gene ID                 | 124404  |
| Gene Symbol             | SEPT12  |
| Species                 | Human, Mouse  |
| Reactivity Notes        | Mouse reactivity reported in scientific literature (PMID: 24213608)   |
| Specificity/Sensitivity | Sept 12 - septin 12,  |
| Immunogen               | SEPT12 (AAH35619.1, 1 a.a. - 358 a.a.) full-length human protein.<br>MDPLRRSPSPCLSSQPSSPSTPPCEMLGPVGIEAVLDQLKIKAMKMGFEFNIM<br>VVGQSGLGKSTMVNTLFKSKVWKSNNPPGLGVPTPQTLQLHSLTHVIEEKGVKL<br>KLTVTDTPGFGDQINNDNCWDPILGYINEQYEQYLQEEILITRQRHIPDTRVHCC<br>VYFVPPTGHCLRPDLIEFLQRLCRTVNVVPVIARADSLTMEEREAFRRRIQQNL<br>RTHCIDVYPQMCFDEDINDKILNSKLRDRIPFAVVGADQEHLVNGRCVLGRKTK<br>WGIEVENMAHCEFPLLRDLLIRSHLQDLKDITHNIHYENYRVIRLNESHLLPRGP<br>GWNVLAPASPGQLTTPRTFKVCRGAHDDSDDEF |
| Notes                   | This product is produced by and distributed for Abnova, a company based in Taiwan.  |

| Product Application Details |  |
|-----------------------------|--|
| Applications                | Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin   |
| Recommended Dilutions       | Western Blot 1:500, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry-Paraffin   |
| Application Notes           | Antibody reactive against Recombinant Protein with GST tag on ELISA and Western Blot and also on transfected lysate in western blot. GST tag alone is used as a negative control. May also be used for immunofluorescence, immunohistochemistry (paraffin). Use in immunoprecipitation reported in scientific literature (PMID 24213608) |

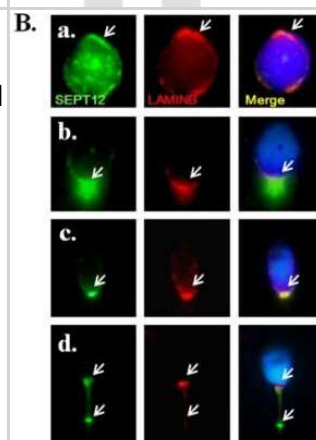


## Images

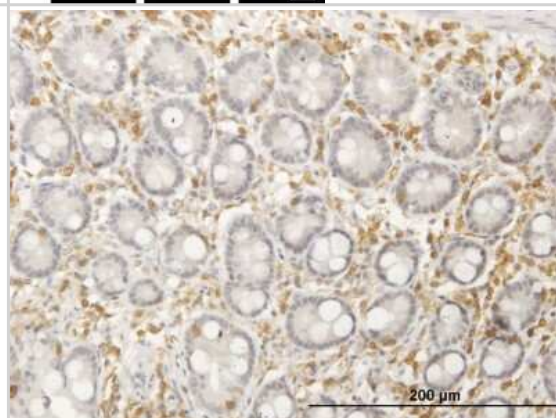
**Western Blot: Septin-12 Antibody [H00124404-B01P] - Analysis of SEPT12 expression in transfected 293T cell line by SEPT12 polyclonal antibody. Lane 1: SEPT12 transfected lysate(39.38 KDa). Lane 2: Non-transfected lysate.**



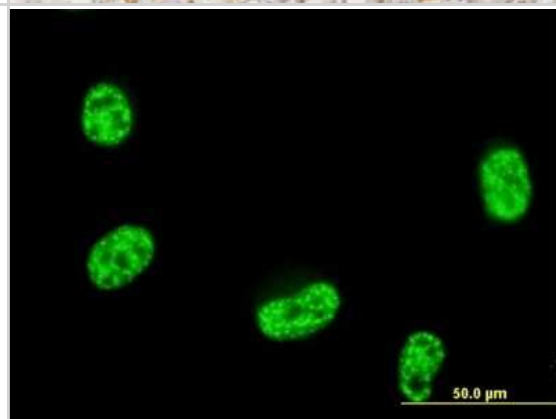
**Immunocytochemistry/Immunofluorescence: Septin-12 Antibody [H00124404-B01P] - An IFA revealed multiple localizations of SEPT12 and LAMINB1 signals. A total of 32 male germ cells were evaluated as (a.) Round spermatids (n = 9; labeled with anti-SEPT12 and anti-LAMINB1 antibodies as the presented figure, 9/9); (b.) elongating and (c.) elongated spermatids (n = 11; 11/11); (d.) ejaculated spermatozoa (n = 10; 10/10). (a.-d.) Anti-SEPT12 antibody (left panel; green), anti-LAMINB1 antibody (middle panel; red), and a combination of the left and middle panels (right panel). The arrow indicates SEPT12 or LAMINB1 signals. Scale bar: 5  $\mu$ m. Image collected and cropped by CiteAb from the following publication (<https://dx.plos.org/10.1371/journal.pone.0120722>) licensed under a CC-BY license.**



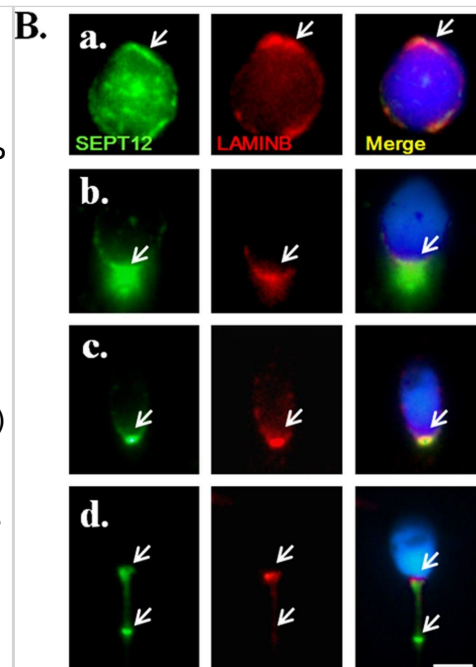
**Immunohistochemistry-Paraffin: Septin-12 Antibody [H00124404-B01P] - Analysis of purified antibody to SEPT12 on formalin-fixed paraffin-embedded human colon. (antibody concentration 3  $\mu$ g/ml)**



**Immunocytochemistry/Immunofluorescence: Septin-12 Antibody [H00124404-B01P] - Analysis of purified antibody to SEPT12 on HeLa cell. (antibody concentration 10  $\mu$ g/ml)**



Immunocytochemistry/ Immunofluorescence: Septin-12 Antibody [H00124404-B01P] - SEPT12 interacts & colocalizes with LAMINB1 male germ cells. (A) Co-IP of FLAG-SPAG4 & LAMINB1 with SEPT12-GFP. The cell lysates of the NT2D1 cells, transfected with pEGFP-SEPT12 & a pFLAG-SPAG4 vector, are subjected to IP with an anti-GFP antibody (right panel, Row 3) or a nonspecific control IgG (right panel, Row 2), followed by IB with an anti-GFP, anti-FLAG, or anti-LAMINB1 antibody. An input protein (5%) was used as a control during the IB of the transfected cell lysates (right panel, Row 1). (B) An IFA revealed multiple localizations of SEPT12 & LAMINB1 signals. A total of 32 male germ cells were evaluated as (A) Round spermatids (n = 9; labeled with anti-SEPT12 & anti-LAMINB1 antibodies as the presented figure, 9/9); (B) elongating & (C) elongated spermatids (n = 11; 11/11); (D) ejaculated spermatozoa (n = 10; 10/10). (A–D) Anti-SEPT12 antibody (left panel; green), anti-LAMINB1 antibody (middle panel; red), & a combination of the left & middle panels (right panel). The arrow indicates SEPT12 or LAMINB1 signals. Scale bar: 5  $\mu$ m. Image collected & cropped by CiteAb from the following publication (<https://dx.plos.org/10.1371/journal.pone.0120722>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

Geng Y, Shao R, Xu T, Zhang L Identification of a potential signature to predict the risk of postmenopausal osteoporosis Gene 2023-11-05 [PMID: 37935322] (WB, Human)

Details:

1:2000 dilution

Xie J, Yu J, Fan Y et al. Low dose lead exposure at the onset of puberty disrupts spermatogenesis-related gene expression and causes abnormal spermatogenesis in mouse. Toxicol Appl Pharmacol. 2020-03-03 [PMID: 32142724]

Yi-Ru S, Han-Yu W, Yung-Chieh T et al. The SEPT12 complex is required for the establishment of a functional sperm head-tail junction. Mol Hum Reprod. 2020-05-11 [PMID: 32392324]

Rafae A, Mohseni A, Yaghmaei P et al. Single-nucleotide polymorphism c.474G>A in the SEPT12 gene is a predisposing factor in male infertility. Mol Reprod Dev. 2019-12-27 [PMID: 31880374]

Chung-Hsin Y, Ya-Yun W, Shi-Kae W et al. Testis-Specific SEPT12 Expression Affects SUN Protein Localization and is Involved in Mammalian Spermiogenesis. Int J Mol Sci. 2019-03-07 [PMID: 30866452]

Kuo PL, Tseng JY, Chen HI et al. Identification of SEPTIN12 as a novel target of the androgen and estrogen receptors in human testicular cells. Biochimie 2018-12-01 [PMID: 30513371]

Huang CY, Wang YY, Chen YL et al. CDC42 Negatively Regulates Testis-Specific SEPT12 Polymerization. Int J Mol Sci 2018-09-05 [PMID: 30189608]

Lai TH, Wu YY, Wang YY et al. SEPT12-NDC1 Complexes Are Required for Mammalian Spermiogenesis. Int J Mol Sci 2016-11-16 [PMID: 27854341]

Yeh CH, Kuo PL, Wang YY et al. SEPT12/SPAG4/LAMINB1 complexes are required for maintaining the integrity of the nuclear envelope in postmeiotic male germ cells. PLoS One 2015-01-01 [PMID: 25775403] (ICC/IF, Human)

Kuo YC, Lin YH, Chen HI et al. SEPT12 mutations cause male infertility with defective sperm annulus. Hum Mutat. 2012-02-20 [PMID: 22275165]

Lin YH, Wang YY, Chen HI et al. SEPTIN12 Genetic Variants Confer Susceptibility to Teratozoospermia. PLoS One. 2012-03-30 [PMID: 22479503]

Kuo PL, Chiang HS, Wang YY et al. SEPT12-microtubule complexes are required for sperm head and tail formation. Int J Mol Sci. 2013-01-01 [PMID: 24213608] (IP, Mouse)



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### **Products Related to H00124404-B01P**

|                    |   |
|--------------------|---|
| HAF007             | Goat anti-Mouse IgG Secondary Antibody [HRP]            |
| NB720-B            | Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin] |
| NBP1-97019-5mg     | Mouse IgG Isotype Control                               |
| H00124404-P01-10ug | Recombinant Human Septin-12 GST (N-Term) Protein        |

### **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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