

Product Datasheet

DSPP Antibody - Azide and BSA Free NBP2-92546-0.1ml

Unit Size: 0.1 ml

Store at -20C. Avoid freeze-thaw cycles.

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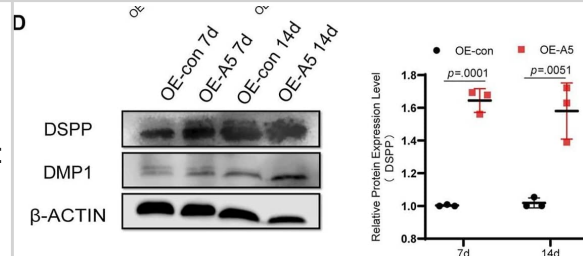
NBP2-92546-0.1ml

DSPP Antibody - Azide and BSA Free

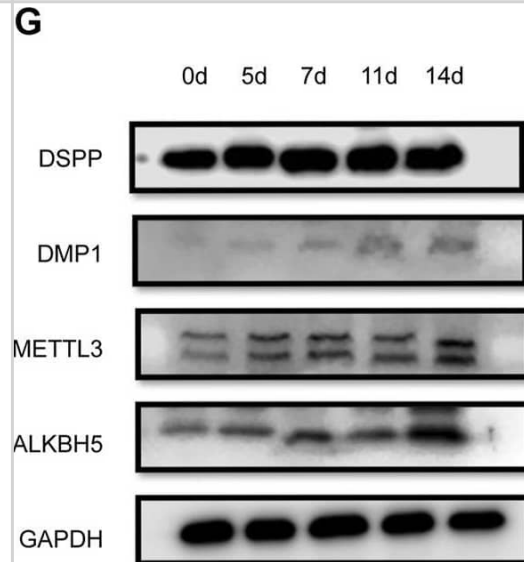
Product Information	
Unit Size	0.1 ml
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Affinity purified
Buffer	PBS (pH 7.3), 50% glycerol
Target Molecular Weight	131 kDa
Product Description	
Host	Rabbit
Gene ID	1834
Gene Symbol	DSPP
Species	Human, Mouse, Rat
Immunogen	Recombinant fusion protein containing a sequence corresponding to amino acids 16-146 of human DSPP (NP_055023.2). IPVPQSKPLERHVEKSMNLHLLARSNVSVQDELNASGTIKESGVLVHEGDRGR QENTQDGHKGEGNGSKWAEVGGKSFSTYSTLANEEGNIEGWNGDTGKAETY GHDGIHGKEENITANGIQGQVSIIDNA
Product Application Details	
Applications	Western Blot, ELISA, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry
Recommended Dilutions	Western Blot 1:500 - 1:5000, ELISA Recommended starting concentration is 1 µg/mL. Immunohistochemistry Reactivity reported in (PMID:35780838), Immunocytochemistry/ Immunofluorescence 1:50 - 1:200

Images

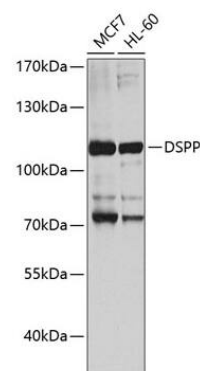
Alkbh5 improved odontoblast differentiation of mDPC6T cells. (A) Transfer efficiency of overexpressed Alkbh5 in mDPC6T cells was detected and observed via red fluorescent protein labeling under a microscope (see above) after transfection for 72 h. The lower panel shows the immunofluorescence images taken simultaneously. Scale bar: 100 μ m (original magnification \times 100). (B,C) Alkbh5 expression level was measured via qPCR and western blotting in the Alkbh5 overexpression group and negative control group. (D) The protein levels of DSPP and DMP1 in the Alkbh5 overexpression group and control group were measured via western blotting after 7 and 14 days of odontoblast induction. (E) The mRNA expression levels of *Dspp* and *Dmp1* were measured via qRT-PCR after 7 and 14 days of odontoblast induction. (F) ALP activity was determined. Alkbh5, AlkB homolog H5; Dspp, dentin sialophosphoprotein; Dmp1, dentin matrix acidic phosphoprotein 1; qRT-PCR, quantitative reverse transcription-polymerase chain reaction; ALP, alkaline phosphatase. (G) Mineralized nodule formation was analyzed on days 7 and 14 via Alizarin Red S staining in the Alkbh5 overexpression groups and the control group undergoing odontoblast induction. Scale bars: 2 mm and 100 μ m (high magnification). Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/35784864>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Alkbh5 was upregulated during mouse odontoblast differentiation in vivo and in vitro. (A) Immunohistochemistry analysis of the expression of ALKBH5 in the PN2.5 murine mandibular incisors. ALKBH5 protein expression was low in (B) pOd and was strongly expressed in (C) polOd (D) sOd, and (E) mOd. (F) The odontoblast markers *Dspp* and *Dmp1*, and m6A methylase *Mettl3* and demethylase *Alkbh5* were upregulated after induction. (G) The protein expression levels of METTL3, ALKBH5, DSPP, and DMP1 were significantly increased. (H) Quantification of the DMP1, DSPP, METTL3, and ALKBH5 protein expression level during odontoblast induction. (A–E) Scale bar: 100 μ m Alkbh5, AlkB homolog H5; pOd, pre-odontoblasts; polOd, polarizing odontoblasts; sOd, secretory odontoblasts; mOd, mature odontoblasts; Dspp, dentin sialophosphoprotein; Dmp1, dentin matrix acidic phosphoprotein 1; *Mettl3*, methyltransferase-like 3; PN2.5, postnatal day 2.5. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/35784864>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Analysis of various lysates using DSPP Rabbit pAb at 1:1000 dilution. Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) at 1:10000 dilution. Lysates/proteins: 25 μ g per lane. Blocking buffer: 3% nonfat dry milk in TBST. Detection: ECL Basic Kit. Exposure time: 30s.



Publications

Cheng Tian, Jihua Chai, Weidong Liu, Xinye Zhang, Yashu Li, Huanyan Zuo, Guohua Yuan, Haojian Zhang, Huan Liu, Zhi Chen Role of the Demethylase AlkB Homolog H5 in the Promotion of Dentinogenesis *Frontiers in Physiology* 2022-06-15 [PMID: 35784864]

Zheng H, Zhang X, Fu J et al. CHIP inhibits odontoblast differentiation through promoting DLX3 polyubiquitylation and degradation *Development (Cambridge, England)* 2023-05-15 [PMID: 37213079]

Fu J, Zhang X, Zheng H et al. A WWP2-PTEN-KLF5 signaling axis regulates odontoblast differentiation and dentinogenesis in mice *Journal of Biological Chemistry* Jul 1 2022 12:00AM [PMID: 35780838] (IHC, Mouse)





Novus Biologicals USA

10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada

21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd

19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information

www.novusbio.com
Technical Support: nb-technical@bio-techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

Products Related to NBP2-92546-0.1ml

HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
314-BP-010	BMP-4 [Unconjugated]

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