

Product Datasheet

DHPS Antibody - BSA Free

NBP1-82648

Unit Size: 0.1 ml

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

www.novusbio.com



technical@novusbio.com

Publications: 2

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NBP1-82648

Updated 3/4/2026 v.20.1

Earn rewards for product reviews and publications.

Submit a publication at www.novusbio.com/publications

Submit a review at www.novusbio.com/reviews/destination/NBP1-82648



NBP1-82648

DHPS Antibody - BSA Free

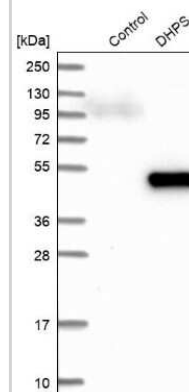
Product Information	
Unit Size	0.1 ml
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Affinity purified
Buffer	PBS (pH 7.2) and 40% Glycerol

Product Description	
Host	Rabbit
Gene ID	1725
Gene Symbol	DHPS
Species	Human
Immunogen	This antibody was developed against Recombinant Protein corresponding to amino acids: QVRGYDFNRGVNYRALLEAFGTTGFQATNFGRAVQQVNAMIEKKLEPLSQDE DQHADLTQSRRLTSTCTIFLGYTSNLISSGIRETIRYLQHNMVDVLTAGGVE EDLIKC

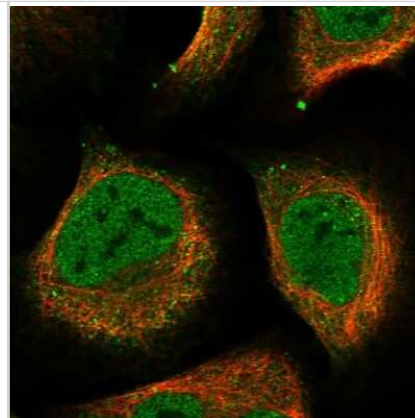
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry
Recommended Dilutions	Western Blot 0.04-0.4 ug/ml, Immunohistochemistry 1:200 - 1:500, Immunocytochemistry/ Immunofluorescence 0.25-2 ug/ml, Immunohistochemistry-Paraffin 1:200 - 1:500
Application Notes	For IHC-Paraffin, HIER pH 6 retrieval is recommended. ICC/IF Fixation Permeabilization: Use PFA/Triton X-100.

Images

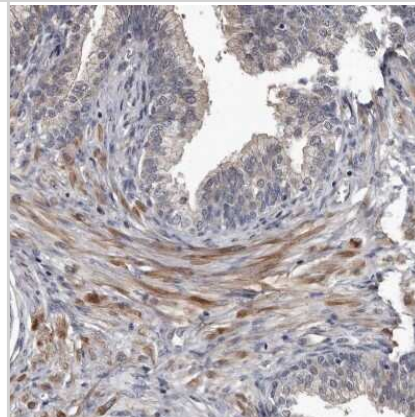
Western Blot: DHPS Antibody [NBP1-82648] - Analysis in control (vector only transfected HEK293T lysate) and DHPS over-expression lysate (Co-expressed with a C-terminal myc-DDK tag (3.1 kDa) in mammalian HEK293T cells).



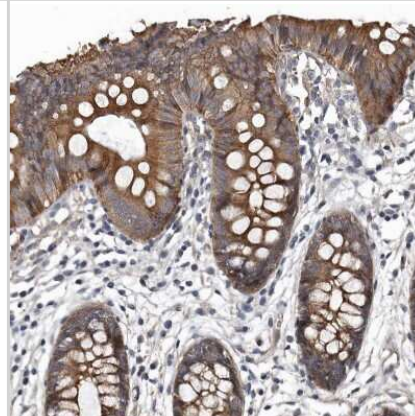
Immunocytochemistry/Immunofluorescence: DHPS Antibody [NBP1-82648] - Staining of human cell line U-2 OS shows localization to nucleoplasm, plasma membrane & cytosol. Antibody staining is shown in green.



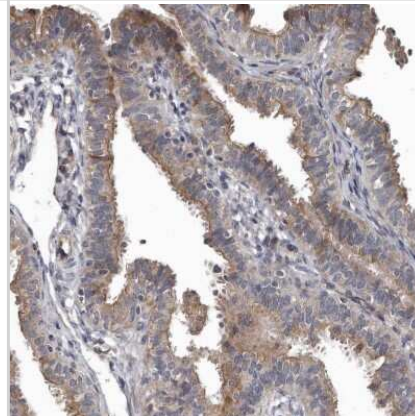
Immunohistochemistry-Paraffin: DHPS Antibody [NBP1-82648] - Staining of human prostate shows moderate cytoplasmic positivity in smooth muscle cells.



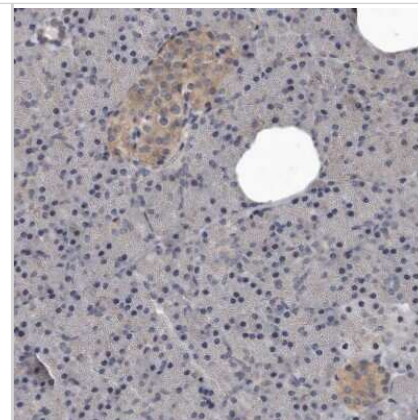
Immunohistochemistry-Paraffin: DHPS Antibody [NBP1-82648] - Staining of human colon shows moderate cytoplasmic positivity in glandular cells.



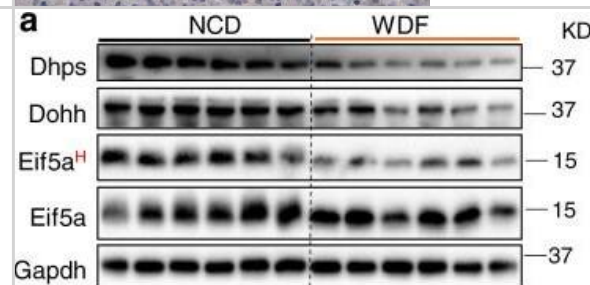
Immunohistochemistry-Paraffin: DHPS Antibody [NBP1-82648] - Staining of human fallopian tube shows moderate cytoplasmic/membranous positivity in glandular cells.



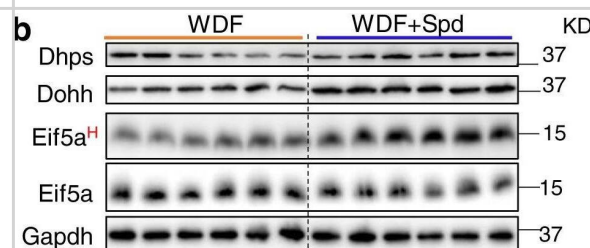
Immunohistochemistry-Paraffin: DHPS Antibody [NBP1-82648] - Staining of human pancreas shows weak cytoplasmic positivity in islets of Langerhans.



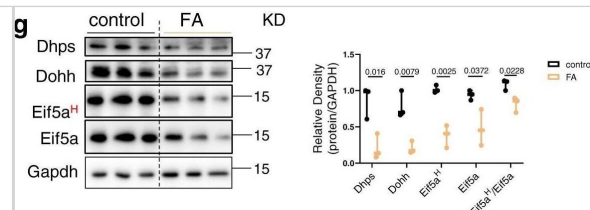
Spermidine supplementation restored hepatic Eif5aH and mitochondrial protein levels in a dietary mouse model of NASH. a–c Western blot and densitometric analysis of hepatic Dhps, Dohh, Eif5aH, and Eif5a in NCD vs. WDF (a), and WDF vs. WDF + Spd (b) mice. The blots in a and b were processed in parallel. Densitometric analysis (c) was first normalized with GAPDH, and then calculated the fold change against WDF (NCD vs WDF, and WDF + Spd vs WDF). (n = 6) (d–f) Western blot and densitometric analysis of Tfam, PGC1 α , and mitochondrial proteins in the liver from mice fed with NCD vs. WDF (d), or WDF vs. WDF + Spd (e). The blots in d and e were processed in parallel. Densitometric analysis (f, n = 6) was first normalized with GAPDH, and then calculated the fold change against WDF (NCD vs WDF, and WDF + Spd vs WDF). (g, h) Mitochondrial DNA copy number (g) and circulating β -hydroxybutyrate (h) in NCD (n = 6), WDF (n = 6), and WDF + Spd (n = 6) groups. Significance was calculated by one-way ANOVA or Kruskal–Wallis test, as appropriate. Source data are provided as a Source Data file. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/36057633>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



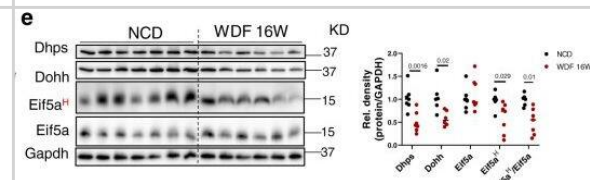
Spermidine supplementation restored hepatic Eif5aH and mitochondrial protein levels in a dietary mouse model of NASH. a–c Western blot and densitometric analysis of hepatic Dhps, Dohh, Eif5aH, and Eif5a in NCD vs. WDF (a), and WDF vs. WDF + Spd (b) mice. The blots in a and b were processed in parallel. Densitometric analysis (c) was first normalized with GAPDH, and then calculated the fold change against WDF (NCD vs WDF, and WDF + Spd vs WDF). (n = 6) (d–f) Western blot and densitometric analysis of Tfam, PGC1 α , and mitochondrial proteins in the liver from mice fed with NCD vs. WDF (d), or WDF vs. WDF + Spd (e). The blots in d and e were processed in parallel. Densitometric analysis (f, n = 6) was first normalized with GAPDH, and then calculated the fold change against WDF (NCD vs WDF, and WDF + Spd vs WDF). (g, h) Mitochondrial DNA copy number (g) and circulating β -hydroxybutyrate (h) in NCD (n = 6), WDF (n = 6), and WDF + Spd (n = 6) groups. Significance was calculated by one-way ANOVA or Kruskal–Wallis test, as appropriate. Source data are provided as a Source Data file. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/36057633>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Decreased DHPS-DOHH-EIF5AH pathway in NAFLD. a Polyamine synthesis and hypusination of EIF5A pathway in eukaryotic cells. Enzymes ARG1, ODC, SRM are involved in converting arginine to spermidine. DHPS and DOHH use spermidine to hypusinate EIF5A. b Violin plots showing mRNA levels of genes involved in endogenous polyamine biosynthesis and EIF5A hypusination in Control (n = 19), steatosis (n = 10), and NASH (n = 16) from publicly available database (accession number E-MEXP-3291, <http://www.webcitation.org/5zyojNu7T>)²⁰. c Violin plots showing mRNA levels of genes involved in endogenous polyamine biosynthesis and EIF5A hypusination in Control (n = 12), steatosis (n = 9), and NASH (n = 17) from publicly available database (GSE48452)²¹. b, c Significance was calculated by one-way ANOVA or Kruskal–Wallis test, as appropriate. d Quantitative-PCR analysis of mRNA levels of polyamine metabolism genes in the livers from mice fed with NCD (n = 8) or WDF (n = 8) for 16 weeks. e Western blot and densitometric analysis of protein levels of Dhps, Dohh, eIF5AH, and eIF5A in the liver from mice fed with NCD (n = 7) or WDF (n = 6) for 16 weeks. f, g mRNA expression of genes in polyamine biosynthesis and hypusination pathways (f, n = 5), and protein levels of Dhps, Dohh, eIF5AH, and eIF5A (g, n = 3) in AML12 hepatic cells treated with fatty acids (FA, palmitic acid 0.6 mM, oleic acid 0.17 mM) for 48 h. f–g Data were shown as box-and-whisker with median (middle line), 25th–75th percentiles (box), and min-max values (whiskers). d–g significance was calculated by two-tailed Student's t test or Mann–Whitney U test, as appropriate. Source data are provided as a Source Data file. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/36057633>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Decreased DHPS-DOHH-EIF5AH pathway in NAFLD. a Polyamine synthesis and hypusination of EIF5A pathway in eukaryotic cells. Enzymes ARG1, ODC, SRM are involved in converting arginine to spermidine. DHPS and DOHH use spermidine to hypusinate EIF5A. b Violin plots showing mRNA levels of genes involved in endogenous polyamine biosynthesis and EIF5A hypusination in Control (n = 19), steatosis (n = 10), and NASH (n = 16) from publicly available database (accession number E-MEXP-3291, <http://www.webcitation.org/5zyojNu7T>)²⁰. c Violin plots showing mRNA levels of genes involved in endogenous polyamine biosynthesis and EIF5A hypusination in Control (n = 12), steatosis (n = 9), and NASH (n = 17) from publicly available database (GSE48452)²¹. b, c Significance was calculated by one-way ANOVA or Kruskal–Wallis test, as appropriate. d Quantitative-PCR analysis of mRNA levels of polyamine metabolism genes in the livers from mice fed with NCD (n = 8) or WDF (n = 8) for 16 weeks. e Western blot and densitometric analysis of protein levels of Dhps, Dohh, eIF5AH, and eIF5A in the liver from mice fed with NCD (n = 7) or WDF (n = 6) for 16 weeks. f, g mRNA expression of genes in polyamine biosynthesis and hypusination pathways (f, n = 5), and protein levels of Dhps, Dohh, eIF5AH, and eIF5A (g, n = 3) in AML12 hepatic cells treated with fatty acids (FA, palmitic acid 0.6 mM, oleic acid 0.17 mM) for 48 h. f–g Data were shown as box-and-whisker with median (middle line), 25th–75th percentiles (box), and min-max values (whiskers). d–g significance was calculated by two-tailed Student's t test or Mann–Whitney U test, as appropriate. Source data are provided as a Source Data file. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/36057633>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Zhou J, Pang J, Tripathi M et al. Spermidine-mediated hypusination of translation factor EIF5A improves mitochondrial fatty acid oxidation and prevents non-alcoholic steatohepatitis progression Nature Communications 2022-09-03 [PMID: 36057633]

Stadler C, Rexhepaj E, Singan VR et al. Immunofluorescence and fluorescent-protein tagging show high correlation for protein localization in mammalian cells. Nat Methods 2013-04-01 [PMID: 23435261]





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 NBP1-82648

NBP1-82648PEP	DHPS Recombinant Protein Antigen
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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.

For more information on our 100% guarantee, please visit www.novusbio.com/guarantee

Earn gift cards/discounts by submitting a review: www.novusbio.com/reviews/submit/NBP1-82648

Earn gift cards/discounts by submitting a publication using this product:
www.novusbio.com/publications

