

Product Datasheet

LHPP Antibody - BSA Free

NBP1-83273

Unit Size: 0.1 ml

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

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Publications: 2

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NBP1-83273

LHPP Antibody - BSA Free

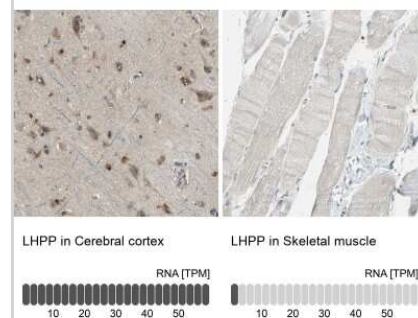
Product Information	
Unit Size	0.1 ml
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium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

Product Description	
Description	Novus Biologicals Rabbit LHPP Antibody - BSA Free (NBP1-83273) is a polyclonal antibody validated for use in IHC and WB. Anti-LHPP Antibody: Cited in 2 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	64077
Gene Symbol	LHPP
Species	Human, Mouse
Reactivity Notes	Mouse reactivity reported in scientific literature (PMID: 29562234).
Immunogen	This antibody was developed against Recombinant Protein corresponding to amino acids: SGVLYDSGAGGGTAIAGSVEAVARLKRSLKVRFCTNESQKSRAELVGQLQRL GFDISEQEV TAPAPAACQILKERGLRPYLLIHDGVRSEFDQIDTSNPNCVVIADA GE

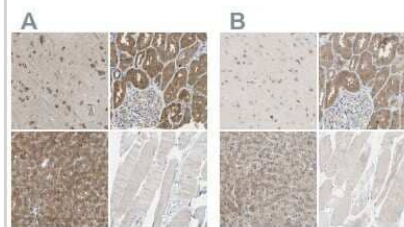
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunohistochemistry
Recommended Dilutions	Western Blot 0.04-0.4 ug/ml, Immunohistochemistry 1:200 - 1:500, Immunohistochemistry-Paraffin 1:200 - 1:500
Application Notes	For IHC-Paraffin, HIER pH 6 retrieval is recommended.

Images

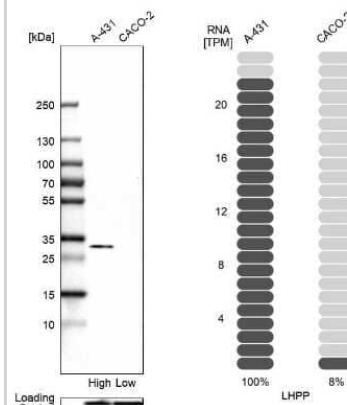
Immunohistochemistry-Paraffin: LHPP Antibody [NBP1-83273] - Analysis in human cerebral cortex and skeletal muscle tissues. Corresponding LHPP RNA-seq data are presented for the same tissues.



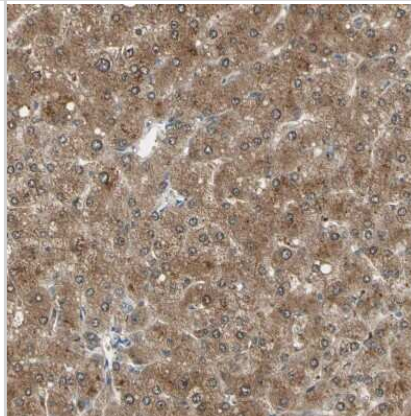
Immunohistochemistry-Paraffin: LHPP Antibody [NBP1-83273] - Staining of human cerebral cortex, kidney, liver and skeletal muscle using Anti-LHPP antibody (A) NBP1-83273 shows similar protein distribution across tissues to independent antibody NBP1-83272 (B).



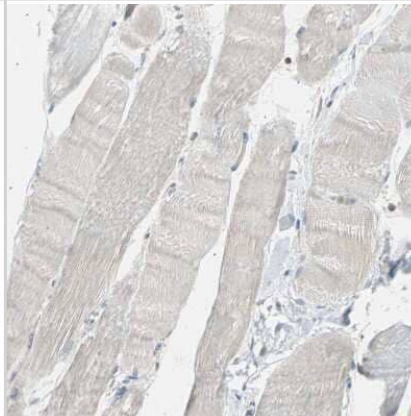
Western Blot: LHPP Antibody [NBP1-83273] - Analysis in human cell lines A-431 and Caco-2 using anti-LHPP antibody. Corresponding LHPP RNA-seq data are presented for the same cell lines. Loading control: anti-PPIB.



Immunohistochemistry-Paraffin: LHPP Antibody [NBP1-83273] - Staining of human liver shows moderate cytoplasmic positivity in hepatocytes.



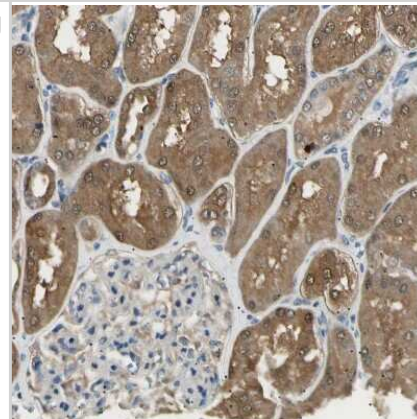
Immunohistochemistry-Paraffin: LHPP Antibody [NBP1-83273] - Staining of human skeletal muscle shows no positivity in myocytes as expected.



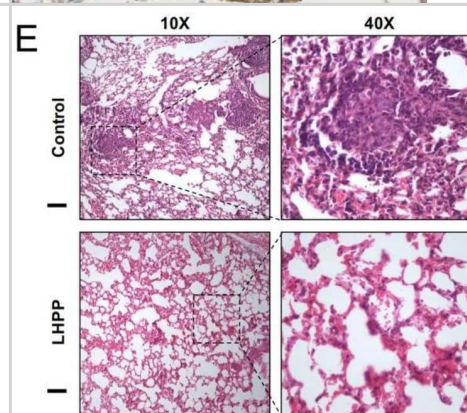
Immunohistochemistry-Paraffin: LHPP Antibody [NBP1-83273] - Staining of human cerebral cortex shows moderate cytoplasmic positivity in neurons and glial cells.



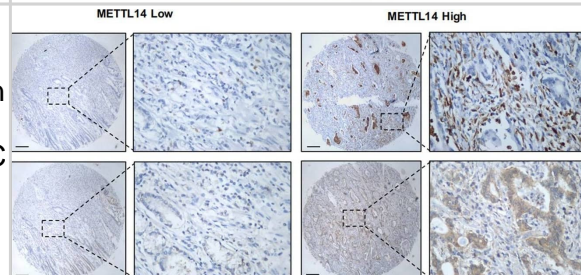
Immunohistochemistry-Paraffin: LHPP Antibody [NBP1-83273] - Staining of human kidney shows moderate cytoplasmic positivity in cells in tubules.



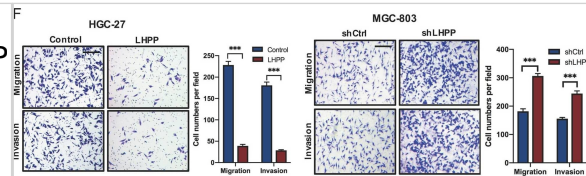
Immunohistochemistry: LHPP Antibody [NBP1-83273] - Representative images of lung metastasis and hematoxylin-and-eosin staining. Metastatic nodules were counted with or without a microscope and recorded. Overexpression of LHPP in MGC-803 cells significantly reduced the number of metastatic lesions in the lungs. Scale bars = 200 μ m. Image collected and cropped by CiteAb from the following publication ([//pubmed.ncbi.nlm.nih.gov/35568711/](https://pubmed.ncbi.nlm.nih.gov/35568711/)) licensed under a CC-BY license.



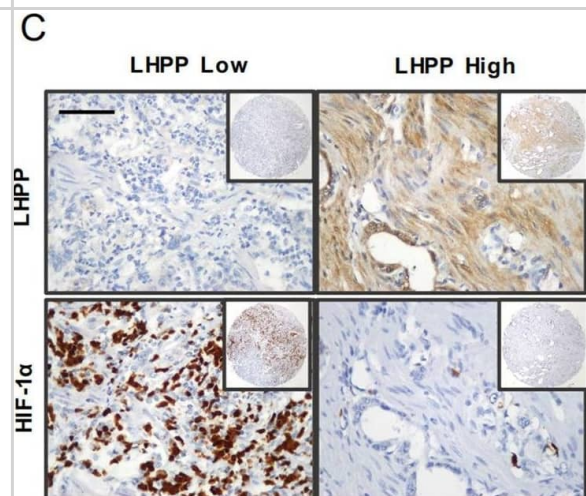
Immunohistochemistry: LHPP Antibody [NBP1-83273] - METTL14-mediated m6A modification represses LHPP expression in GC. A The potential m6A sites were predicted by SRAMP. B, C qRT-PCR & western blot assays revealed the mRNA & protein expression, respectively, of LHPP in GC cells with knockdown or overexpression of METTL14. D IHC staining of LHPP & METTL14 in TMA. Scale bars = 200 μ m. E m6A immunoprecipitation & qRT-PCR assays showed the relative percentage of LHPP mRNA with methylation. Data were analyzed using the Wilcoxon test. *P < 0.05, **P < 0.01, ***P < 0.001, ns no significant difference, GC gastric cancer, qRT-PCR quantitative reverse transcription-polymerase chain reaction, IHC immunohistochemical, TMS tissue microarrays. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/35568711/>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



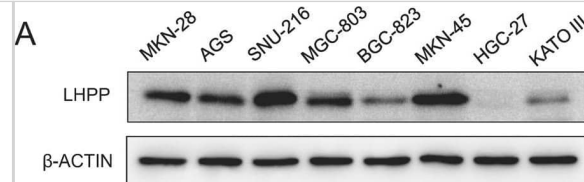
Immunohistochemistry: LHPP Antibody [NBP1-83273] - LHPP inhibits GC proliferation & metastasis in vitro. A Basic protein expression of LHPP in GC cell lines (MKN-28, AGS, SNU-216, MGC-803, BGC, MKN-45, HGC-27 & KATO III) was detected by western blotting. B HGC-27 cells with stable LHPP overexpression or MGC-803 cells with LHPP knockdown were created. The changes in LHPP expression were confirmed using western blotting. C, D The proliferative ability of stably transfected HGC-27 or MGC-803 cells was investigated via CCK-8 assays & colony formation. CCK-8 data were analyzed using a two-way analysis of variance. Colony number data were analyzed using the Wilcoxon test. Scale bars = 1 cm. E The drug resistance of stably transfected HGC-27 or MGC-803 cells was investigated via IC50 assays & colony formation. F Transwell assays with stably transfected HGC-27 & MGC-803 cells were performed. Representative images & quantification of the results are presented. Scale bars = 100 μ m. Cell number data were analyzed using the Wilcoxon test. ***P < 0.001, GC gastric cancer, OXA Oxaliplatin. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/35568711>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



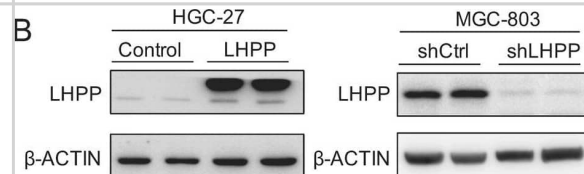
Immunohistochemistry: LHPP Antibody [NBP1-83273] - LHPP suppresses aerobic glycolysis. A Relative mRNA expression levels of glycolytic genes & glutamine transporters in LHPP-overexpressing or LHPP-knockdown MGC-803 cells & control cells by qPCR. B Protein expression levels of glycolytic genes & glutamine transporters in LHPP-overexpressing or LHPP-knockdown MGC-803 cells & control cells on western blot. C IHC staining of LHPP & HIF1A in TMAs & their correlation. Scale bars = 100 μ m. D Oxygen consumption rate & extracellular acidification rate of LHPP-overexpressing or LHPP-knockdown MGC-803 cells & control cells were measured using the Seahorse Bioscience XF96 analyser. E Human phosphokinase microarray assay analysis of the conditioned medium from stably transfected HGC-27 cells. A summary of the relative signal intensities of the indicated proteins is shown. G, H IHC staining of LHPP & p-GSK3b in TMAs & their correlation. Scale bars = 200 μ m. F Combined LHPP & GSK3b by co-immunoprecipitation. I Protein expression levels of the Wnt pathway in LHPP-overexpressing or LHPP-knockdown MGC-803 cells & control cells on western blot. Data were analyzed using the Wilcoxon test. *P < 0.05, **P < 0.01, ***P < 0.001, KEGG Kyoto encyclopaedia of genes & genomes, GO gene ontology, qPCR quantitative polymerase chain reaction, IHC immunohistochemical, TMA tissue microarray. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/35568711>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



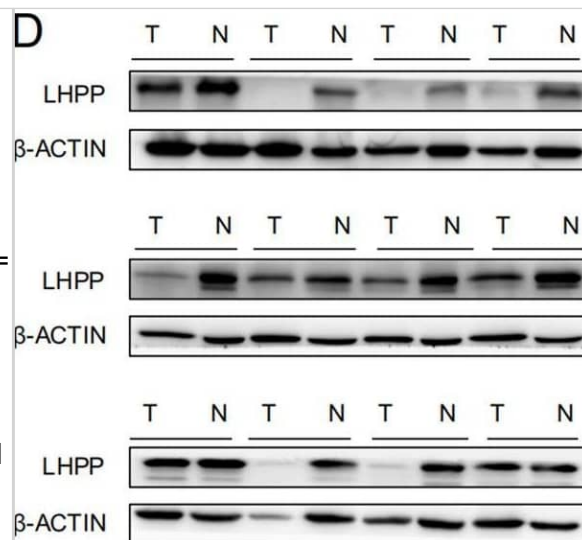
LHPP inhibits GC proliferation and metastasis in vitro. A Basic protein expression of LHPP in GC cell lines (MKN-28, AGS, SNU-216, MGC-803, BGC, MKN-45, HGC-27 and KATO III) was detected by western blotting. B HGC-27 cells with stable LHPP overexpression or MGC-803 cells with LHPP knockdown were created. The changes in LHPP expression were confirmed using western blotting. C, D The proliferative ability of stably transfected HGC-27 or MGC-803 cells was investigated via CCK-8 assays and colony formation. CCK-8 data were analyzed using a two-way analysis of variance. Colony number data were analyzed using the Wilcoxon test. Scale bars = 1 cm. E The drug resistance of stably transfected HGC-27 or MGC-803 cells was investigated via IC50 assays and colony formation. F Transwell assays with stably transfected HGC-27 and MGC-803 cells were performed. Representative images and quantification of the results are presented. Scale bars = 100 μ m. Cell number data were analyzed using the Wilcoxon test. ***P < 0.001, GC gastric cancer, OXA Oxaliplatin. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/35568711>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



LHPP inhibits GC proliferation and metastasis in vitro. A Basic protein expression of LHPP in GC cell lines (MKN-28, AGS, SNU-216, MGC-803, BGC, MKN-45, HGC-27 and KATO III) was detected by western blotting. B HGC-27 cells with stable LHPP overexpression or MGC-803 cells with LHPP knockdown were created. The changes in LHPP expression were confirmed using western blotting. C, D The proliferative ability of stably transfected HGC-27 or MGC-803 cells was investigated via CCK-8 assays and colony formation. CCK-8 data were analyzed using a two-way analysis of variance. Colony number data were analyzed using the Wilcoxon test. Scale bars = 1 cm. E The drug resistance of stably transfected HGC-27 or MGC-803 cells was investigated via IC50 assays and colony formation. F Transwell assays with stably transfected HGC-27 and MGC-803 cells were performed. Representative images and quantification of the results are presented. Scale bars = 100 μ m. Cell number data were analyzed using the Wilcoxon test. ***P < 0.001, GC gastric cancer, OXA Oxaliplatin. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/35568711>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Expression and prognostic value of LHPP in GC. A Flowchart of the screening process of candidate genes. B mRNA levels of LHPP in gastric tumours and adjacent normal tissues were measured by qRT-PCR. C LHPP protein levels in gastric tumours and adjacent normal tissues were measured by western blot. D Representative images of LHPP protein levels in gastric tumours and adjacent normal tissues. E Expression of LHPP in 123 paraffin-embedded specimens from the internal cohort was determined by TMA-based IHC staining. Scale bars = 200 μ m. F LHPP IHC score of gastric tumours and adjacent normal tissues in Fig. 1F. Data were presented as the mean \pm SD and were analysed using Student's t-test. G Kaplan–Meier analyses the correlations between LHPP expression and overall survival in the internal cohort. H Kaplan–Meier analyses the correlations between ACT and overall survival in the internal cohort stratified by LHPP expression. I Kaplan–Meier analyses the correlations between LHPP expression and overall survival in the external cohort. J Kaplan–Meier analyses the correlations between ACT and overall survival in the external cohort stratified by LHPP expression. P values for all survival analyses were calculated using the log-rank test. ***P < 0.001, GC gastric cancer, qRT-PCR quantitative reverse transcription-polymerase chain reaction, TMA tissue microarray, IHC immunohistochemistry, ACT adjuvant chemotherapy, Non-ACT not receiving adjuvant chemotherapy. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/35568711>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Lin J, Lian N, Gao Y Et Al. m6A Methylation Mediates LHPP Acetylation as a Tumour Aerobic Glycolysis Suppressor to Improve the Prognosis of Gastric Cancer Cell Death Dis 2022-05-14 [PMID: 35568711] (IF/IHC, Human)

Hindupur SK, Colombi M, Fuhs SR et al. The protein histidine phosphatase LHPP is a tumour suppressor Nature 2018-03-21 [PMID: 29562234] (IHC-P, Mouse)



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NBP1-83273PEP	LHPP Recombinant Protein Antigen
NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
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NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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