

Product Datasheet

Glutathione Peroxidase 4/GPX4 Antibody - BSA Free NBP2-54979

Unit Size: 100 ul

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

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NBP2-54979

Glutathione Peroxidase 4/GPX4 Antibody - BSA Free

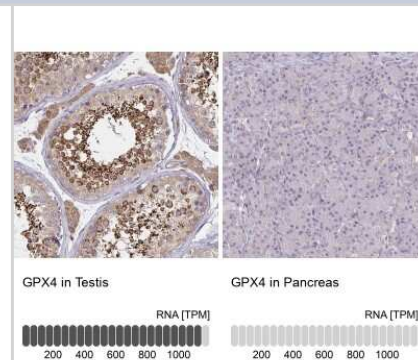
Product Information	
Unit Size	100 ul
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Affinity purified
Buffer	PBS (pH 7.2) and 40% Glycerol

Product Description	
Host	Rabbit
Gene ID	2879
Gene Symbol	GPX4
Species	Human
Reactivity Notes	Use in Human reported in scientific literature (PMID:33707434).
Immunogen	This antibody was developed against a recombinant protein corresponding to the following amino acid sequence: NVKFDMFSKICVNGDDAHPLWKWMKIQPKGKILGNAIKWNFTKFLIDKNGCV VKRYGPMEEPLVIEKDLPHY

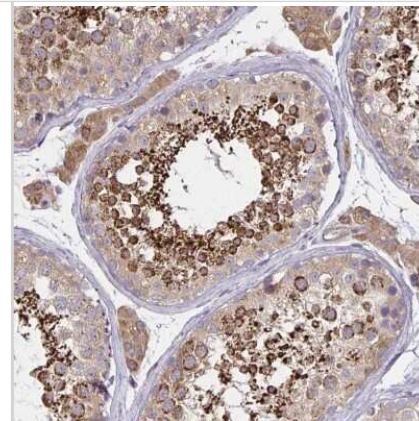
Product Application Details	
Applications	Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Immunohistochemistry 1:500 - 1:1000, Immunohistochemistry-Paraffin 1:500 - 1:1000
Application Notes	For IHC-Paraffin, HIER pH 6 retrieval is recommended.

Images

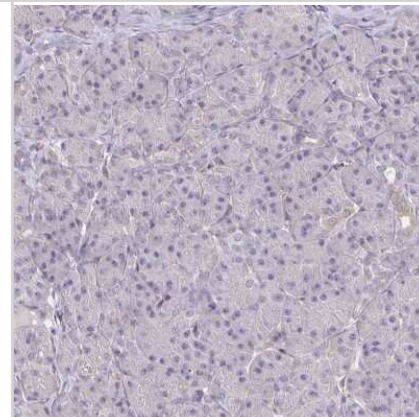
Immunohistochemistry-Paraffin: Glutathione Peroxidase 4/GPX4 Antibody [NBP2-54979] - Staining in human testis and pancreas tissues using anti-GPX4 antibody. Corresponding GPX4 RNA-seq data are presented for the same tissues.



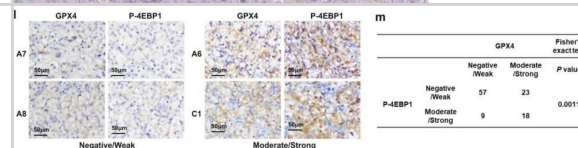
Immunohistochemistry-Paraffin: Glutathione Peroxidase 4/GPX4 Antibody [NBP2-54979] - Staining of human testis shows high expression.



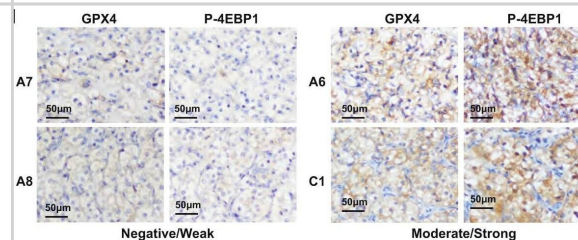
Immunohistochemistry-Paraffin: Glutathione Peroxidase 4/GPX4 Antibody [NBP2-54979] - Staining of human pancreas shows low expression as expected.



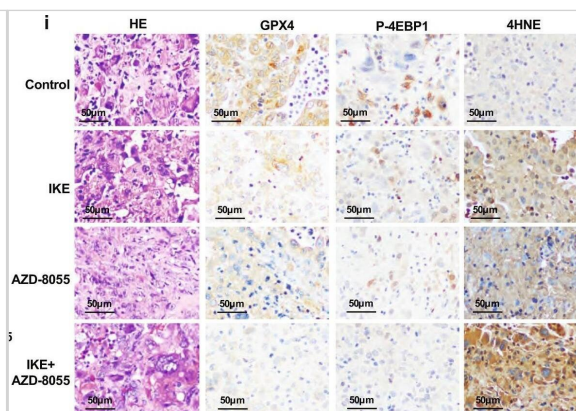
Immunohistochemistry: Glutathione Peroxidase 4/GPX4 Antibody [NBP2-54979] - Cyst(e)ine promotes Glutathione Peroxidase 4/GPX4 protein synthesis partly through Rag-mTORC1-4EBP signaling. l) Representative images from immunohistochemical staining of kidney tumor tissue microarray for Glutathione Peroxidase 4/GPX4 and P-4EBP1. m) Summary and statistical analysis of immunohistochemical staining results for Glutathione Peroxidase 4/GPX4 and P-4EBP1 in tumor tissue microarray. Tissue microarray analysis revealed that P-4EBP1 staining correlated with Glutathione Peroxidase 4/GPX4 level. Image collected and cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/33707434/>) licensed under a CC-BY license.



Immunohistochemistry: Glutathione Peroxidase 4/GPX4 Antibody [NBP2-54979] - Cyst(e)ine promotes GPX4 protein synthesis partly through Rag-mTORC1-4EBP signaling. i) WB analysis of protein expression in control (sgCon) & 4EBP1/2-double-knockout (DKO-1 & DKO-2) UMRC6 cells. Image collected & cropped by CiteAb from following publication (<https://pubmed.ncbi.nlm.nih.gov/33707434/>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunohistochemistry: Glutathione Peroxidase 4/GPX4 Antibody [NBP2-54979] - mTORC1 inhibition sensitizes cancer cells or tumors to ferroptosis. a UMRC6 cells were treated with 1 μ M RSL3 (or 1 μ M ML162), or 1 μ M Torin1, or both combined with or without 5 μ M Ferrostatin-1 (Ferr-1) or 100 μ M deferoxamine (DFO) for 6 h. Then lipid peroxidation was assessed using BODIPY™ 581/591 C11 staining followed by FACS analysis. b Bar graph showing the viability of UMRC6 cells treated with drugs using indicated combination. Concentration of each drug is described as follows. RSL3, 1 μ M; ML162, 1 μ M; Torin1, 1 μ M; Ferr-1, 5 μ M; DFO, 100 μ M. n = 3. c Bar graph showing the viability of indicated cells treated with 300 nM RSL3, or 1 μ M Torin1, or both for 8 h. n = 5. d Bar graph showing the viability of indicated cells treated with 300 nM ML162, or 1 μ M Torin1, or both for 8 h. n = 5. e Bar graph showing the viability of indicated cells treated with different concentrations of cystine for 48 h. n = 4. f Plot showing the viability of indicated cells treated with different concentrations of erastin for 36 h. n = 4. g Volumes of PDX tumors in mice treated daily with 30 mg/kg IKE, or 10 mg/kg AZD8055, or both at different time points as shown. n = 5 mice per group. h Percentages of P-4EBP1-, GPX4-, or 4-HNE-positive stained cells per field. n = 5 randomly selected high-power fields per group. i Haematoxylin & eosin & immunohistochemical staining of PDX tumor samples collected from mice at the end of treatments described in g. For all panels, error bars are mean \pm SD. If not otherwise specified, n indicates biologically independent repeats. P value was determined by two-tailed unpaired Student's t test. For f & g, p value was determined by two-way ANOVA test. Source data are provided as a Source Data file. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/33707434>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Zhang Y, Swanda RV, Nie L et al. mTORC1 couples cyst(e)ine availability with GPX4 protein synthesis and ferroptosis regulation Nature communications 2021-03-11 [PMID: 33707434] (IHC-P, Human)

Details:

Immunohistochemical analysis of human tumor tissue xenografted in mice.



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 NBP2-54979

NBP2-54979PEP	Glutathione Peroxidase 4/GPX4 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

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