

# Product Datasheet

## CPT1A Antibody NB100-53791

Unit Size: 0.1 mg

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

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[technical@novusbio.com](mailto:technical@novusbio.com)

### Publications: 9

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**NB100-53791**

## CPT1A Antibody

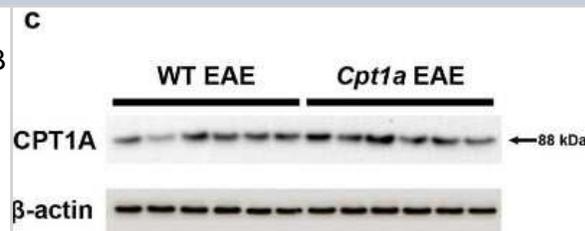
Product Information	
Unit Size	0.1 mg
Concentration	0.5 mg/ml
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	Tris saline (20 mM Tris pH 7.3, 150 mM NaCl), 0.5% BSA
Target Molecular Weight	88 kDa

Product Description	
Description	Novus Biologicals Goat CPT1A Antibody (NB100-53791) is a polyclonal antibody validated for use in IHC, WB and ELISA. Anti-CPT1A Antibody: Cited in 9 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Goat
Gene ID	1374
Gene Symbol	CPT1A
Species	Human, Mouse, Rat
Reactivity Notes	Mouse reactivity reported in scientific literature (PMID: 25026599). Rat reactivity reported in scientific literature (PMID: 23045433).
Specificity/Sensitivity	This antibody is expected to recognize both reported isoforms (NP_001867.2; NP_001027017.1) but is not expected to recognise CPT1B.
Immunogen	Peptide with sequence C-DPAQTVEQRLKLFK corresponding to internal region according to NP_001867.2, NP_001027017.1.

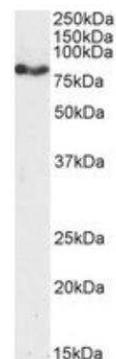
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunohistochemistry, Peptide ELISA
Recommended Dilutions	Western Blot 1-3 ug/mL, Immunohistochemistry, Immunohistochemistry-Paraffin 5-7 ug/ml, Peptide ELISA Detection limit 1:128000
Application Notes	Western blot: Approx 80-85 kDa band observed in lysates of cell line MCF7 (calculated MW of 86.2 kDa according to NP_001027017.1).

## Images

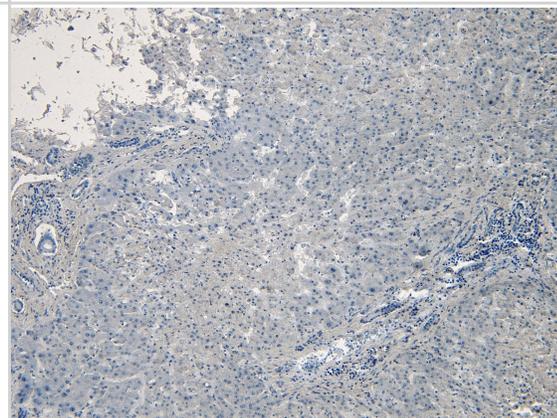
Western Blot: CPT1A Antibody [NB100-53791] - Semiquantitative immunoblotting of CPT1A. Protein expression was investigated in the HB of WT EAE (n=6) and *Cpt1a* P479L EAE mice (n=6). The data were normalized to the density of the beta actin control. Image collected and cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/31527712/>) licensed under a CC-BY license.



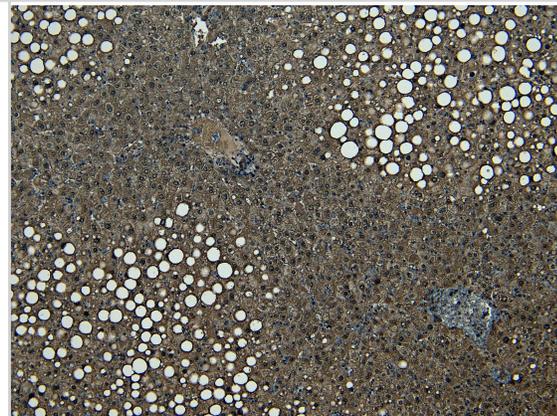
Western Blot: CPT1A Antibody [NB100-53791] - Staining of MCF7 cell lysate (35 ug protein in RIPA buffer). Antibody at 2 ug/mL. Detected by chemiluminescence.



Immunohistochemistry-Paraffin: CPT1A Antibody [NB100-53791] - Negative Control showing staining of paraffin embedded Human Liver, with no primary antibody.



Immunohistochemistry-Paraffin: CPT1A Antibody [NB100-53791] - (5ug/ml) staining of paraffin embedded Human Liver. Heat induced antigen retrieval with citrate buffer pH 6, HRP-staining.



## Publications

Ferrarini F, Zulato E, Moro M et al. Metabolic classification of non-small cell lung cancer patient-derived xenografts by a digital pathology approach: A pilot study *Frontiers in oncology* 2023-02-28 [PMID: 36925926] (IHC-P, Human)

Yang Q, Sun S, Liu W et al. Hypoxia training improves hepatic steatosis partly by downregulation of CB1 receptor in obese mice *Biochemical and Biophysical Research Communications* 2020-02-01 [PMID: 32122652] (WB, Mouse)

Zhao L, Niu J, Lin H et al. Paracrine-endocrine FGF chimeras as potent therapeutics for metabolic diseases *EBioMedicine* 2019-10-17 [PMID: 31631034] (WB, Mouse)

Morkholt AS, Trabjerg MS, Oklinski MKE et al. CPT1A plays a key role in the development and treatment of multiple sclerosis and experimental autoimmune encephalomyelitis *Sci Rep* 2019-09-16 [PMID: 31527712] (WB, Mouse)

Pocai A, Lam TK, Obici S et al. Restoration of hypothalamic lipid sensing normalizes energy and glucose homeostasis in overfed rats. *J Clin Invest* 2006-04-01 [PMID: 16528412]

Zhang ZF, Fan SH, Zheng YL et al. Troxerutin improves hepatic lipid homeostasis by restoring NAD(+)-depletion-mediated dysfunction of lipin 1 signaling in high-fat diet-treated mice. *Biochem. Pharmacol.* 2014-09-01 [PMID: 25026599] (WB, Mouse)

### Details:

CPT1A/carnitine palmitoyltransferase 1A antibody used for WB on lysates of liver tissues from mouse fed or not with high fat diet and/or treated with Troxerutin (PubChem CID 9896814) or EX527 (PubChem CID 5113032)- loading amount of lysate 50 ug, membrane blocking with 5% non-fat milk in 0.1% Tween-20/TBS, ON 4C primary incubation (Fig 8A).

Goedeke L, Vales-Lara FM, Fenstermaker M et al. A Regulatory Role for MicroRNA 33(Asterisk) in Controlling Lipid Metabolism Gene Expression. *Mol Cell Biol* 2013-06-01 [PMID: 23547260] (WB, Human)

Jin K, Norris K, Vaziri ND. Dysregulation of hepatic fatty acid metabolism in chronic kidney disease *Nephrol Dial Transplant* 2012-10-08 [PMID: 23045433] (WB, Rat)

Rayner KJ, Esau CC, Hussain FN et al. Inhibition of miR-33a/b in non-human primates raises plasma HDL and lowers VLDL triglycerides. *Nature*;478(7369):404-407. 2011-10-20 [PMID: 22012398]



### 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](mailto: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](mailto: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 NB100-53791

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NB820-59232	Human Liver Whole Tissue Lysate (Adult Whole Normal)
NB100-53791PEP	CPT1A Antibody Blocking Peptide
NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF017	Rabbit anti-Goat IgG Secondary Antibody [HRP (Horseradish Peroxidase)]
HAF109	Donkey anti-Goat IgG Secondary Antibody [HRP (Horseradish Peroxidase)]
NB410-28088-1mg	Goat IgG Isotype Control

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### 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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