

Product Datasheet

POMC Antibody NB100-1533

Unit Size: 0.1 mg

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

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NB100-1533

POMC Antibody

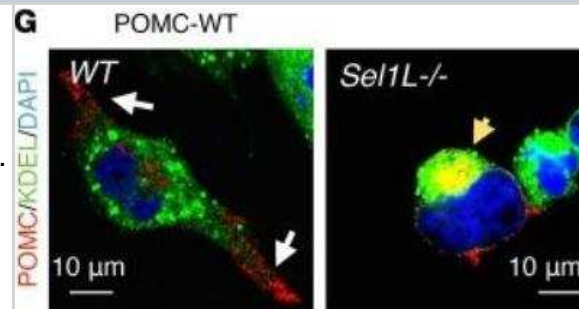
Product Information	
Unit Size	0.1 mg
Concentration	0.5 mg/ml
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	Tris saline (20 mM Tris pH 7.3, 150 mM NaCl), 0.5% BSA
Target Molecular Weight	29.4 kDa

Product Description	
Host	Goat
Gene ID	5443
Gene Symbol	POMC
Species	Human, Mouse, Rat, Porcine, Sheep
Reactivity Notes	Porcine reactivity reported in scientific literature (PMID: 28250970). Sheep reactivity reported in scientific literature (PMID:15661821). Rat reactivity reported in scientific literature (PMID: 23358747).
Immunogen	Peptide with sequence C-NAIIKNAYKKGE corresponding to C-Terminus according to NP_000930.1, NP_001030333.1.

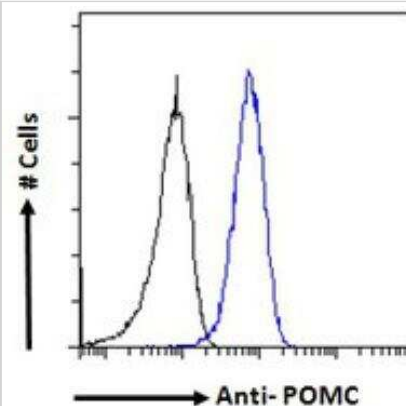
Product Application Details	
Applications	Western Blot, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Peptide ELISA
Recommended Dilutions	Western Blot, Flow Cytometry 10 ug/mL, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry-Paraffin 2 - 4 ug/mL, Peptide ELISA 1:128000
Application Notes	ICC/IF reactivity reported in the literature (PMID: 30709906). Use in WB reported in the literature (PMID: 22249165). WB: Preliminary testing showed a band at approx 30kDa in A431 cell lysate after 1ug/ml antibody staining (calculated MW of 29.4kDa according to NP_000930.1). Primary incubation 1 hour at room temperature.

Images

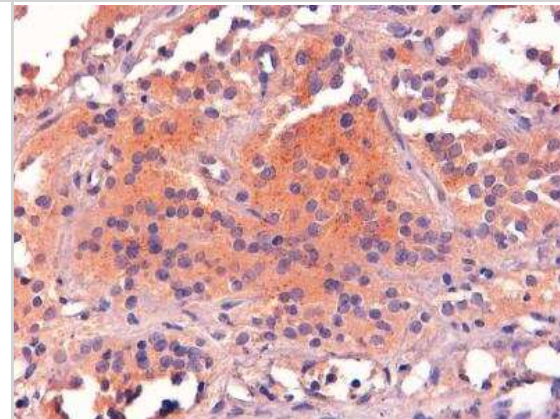
Immunohistochemistry: POMC Antibody [NB100-1533] - Representative confocal images of POMC in POMC-transfected WT and *Sel1L*^{-/-} N2a cells. White arrows point to POMC-containing secretory granules, while yellow arrows point to perinuclear POMC. KDEL marks the ER. Representative data from at least 2 independent experiments are shown. Image collected and cropped by CiteAb from the following publication (jci.org/articles/view/96420), licensed under a CC-BY license.



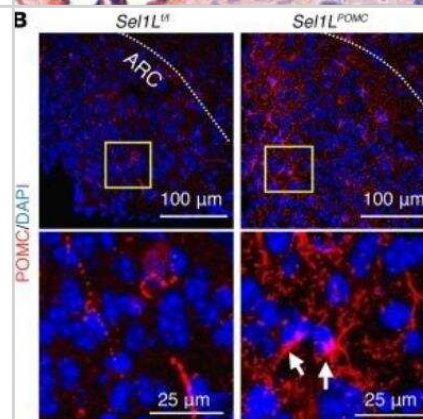
Flow Cytometry: POMC Antibody [NB100-1533] - Flow cytometric analysis of paraformaldehyde fixed A431 cells (blue line), permeabilized with 0.5% Triton. Primary incubation 1hr (10 ug/mL) followed by Alexa Fluor 488 secondary antibody (1 ug/mL). IgG control: Unimmunized goat IgG (black line) followed by Alexa Fluor 488 secondary antibody.



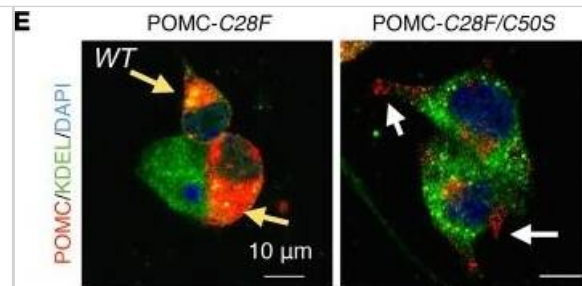
Immunohistochemistry-Paraffin: POMC Antibody [NB100-1533] - Staining of paraffin embedded Human Pituitary Gland. Antibody at 2 ug/mL. Steamed antigen retrieval with Tris/EDTA buffer pH 9, HRP-staining.



Immunohistochemistry: POMC Antibody [NB100-1533] - Representative immunofluorescence images of (B) POMC as a prohormone (n = 5-6 each) in the ARC of mice approximately 5 to 10 weeks of age. Image collected and cropped by CiteAb from the following publication (jci.org/articles/view/96420), licensed under a CC-BY license.



Immunocytochemistry/ Immunofluorescence: POMC Antibody [NB100-1533] - Pathogenic POMC-C28F mutation is completely rescued by an intragenic suppressor mutation C50S. (A) Schematic diagram showing the sequence & positions of Cys residues in POMC-WT, C28F, & C28F/C50S. (B) Western blot analyses of POMC-Flag immunoprecipitates in HEK293T cells transfected with a combination of Myc- or Flag-tagged POMC under nonreducing ($-\beta$ -ME) & reducing ($+\beta$ -ME) SDS-PAGE. Two panels were from the same experiment at the same exposure time, with the irrelevant lanes in the middle cut off. (C) Sucrose gradient fractionation & Western blot analysis of HEK293T cells expressing POMC-C28F or -C28F/C50S under nonreducing ($-\beta$ -ME) & reducing ($+\beta$ -ME) SDS-PAGE. (D) Metabolic labeling experiments to visualize the maturation of nascent POMC in HEK293T cells transfected with POMC-Myc. Cells were pulsed for 30 minutes & chased for the indicated times, followed by immunoprecipitation with anti-Myc agarose beads & separation on SDS-PAGE gels under nonreducing or reducing conditions & autoradiography. (E) Representative confocal images of POMC in POMC-transfected WT N2a cells. White arrows point to secreted POMC in granules, while yellow arrows point to perinuclear POMC, possibly in the form of aggregates. KDEL marks the ER. Representative data from at least 2 independent experiments shown. Image collected & cropped by CiteAb from the following publication (<https://www.jci.org/articles/view/96420>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Shakya M, Shrestha PK, Briski KP et al. Hindbrain 5'-adenosine monophosphate-activated protein kinase Mediates Short-Term Food Deprivation Inhibition of the Gonadotropin-Releasing Hormone-Luteinizing Hormone Axis: Role of Nitric Oxide Neuroscience. 2018-05-06 [PMID: 29746990] (WB, Rat)

Wang Z, Khor S, Cai D. Age-dependent decline of hypothalamic HIF2a in response to insulin and its contribution to advanced age-associated metabolic disorders in mice J. Biol. Chem. 2019-02-01 [PMID: 30709906] (ICC/IF, Mouse)

Mandal SK, Briski KP. Hindbrain Dorsal Vagal Complex AMPK Controls Hypothalamic Gluco-regulatory Transmitter and Counter-Regulatory Hormone Responses to Hypoglycemia. Brain Res. Bull. 2018-11-24 [PMID: 30481553] (WB, Rat)

Kim GH, Shi G, Somlo DR, Haataja L. Hypothalamic ER-associated degradation regulates POMC maturation, feeding, and age-associated obesity. J. Clin. Invest. 2018-02-19 [PMID: 29457782] (IF/IHC, Mouse)

Muhlhausler B, Adam C, Marrocco E et al. Impact of glucose infusion on the structural and functional characteristics of adipose tissue and on hypothalamic gene expression for appetite regulatory neuropeptides in the sheep fetus during late gestation. J Physiol. 2005-05-15 [PMID: 15661821] (Sheep)

Klasvogt S, Zuschratter W, Schmidt A et al. Air-liquid interface enhances oxidative phosphorylation in intestinal epithelial cell line IPEC-J2. Cell Death Discov. 2017-03-02 [PMID: 28250970] (WB, Porcine)

Trebak F, Dubuc I, Arabo A et al. A Potential Role for the Secretogranin II-Derived Peptide EM66 in the Hypothalamic Regulation of Feeding Behavior. J. Neuroendocrinol. 2017-02-06 [PMID: 28166374]

Evans JF, Rodriguez S, Ragolia L. ACTH promotes chondrogenic nodule formation and induces transient elevations in intracellular calcium in rat bone marrow cell cultures via MC2-R signaling. Cell Tissue Res 2013-01-29 [PMID: 23358747] (WB, Rat)

Kaushik S, Arias E, Kwon H et al. Loss of autophagy in hypothalamic POMC neurons impairs lipolysis EMBO Rep 2012-03-01 [PMID: 22249165] (ICC/IF, IF/IHC, WB, Mouse)

Evans JF, Fernando A, Ragolia. Functional melanocortin-2 receptors are expressed by mouse aorta-derived mesenchymal progenitor cells Mol Cell Endocrinol 2012-05-15 [PMID: 22306084] (WB, Mouse)



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Products Related to NB100-1533

NB800-PC8	NIH 3T3 Whole Cell Lysate
NB100-1533PEP	POMC Peptide
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

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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