abcam

ab319115

Anti-Neuropeptide Y antibody [RM1201]

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Multiclonal
Immunogens	The exact immunogen used to generate this antibody is proprietary information.
Clone number	RM1201
Purification technique	Affinity purification Protein A
Specificity	Unsuitable for IHC-Fr in fresh frozen tissue.
Concentration	0.536 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/30
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/4000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Mouse
Dilution info	1/2000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Rat
Dilution info	1/2000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

ICC/IF

Tested

Species	Human
Dilution info	1/1000
Notes	-

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Rat
Dilution info	1/1000
Notes	-

Flow Cyt (Intra)

Tested

Species	Rat
Dilution info	1/500
Notes	-

Species	Mouse
Dilution info	1/50
Notes	-

Not recommended

Species	Human
Dilution info	-
Notes	-

WB

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

IHC-Fr

Tested

Species	Mouse
Dilution info	1/100

Notes	Unsuitable for IHC-Fr in fresh frozen tissue.

Species	Rat
Dilution info	1/100
Notes	Unsuitable for IHC-Fr in fresh frozen tissue.

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information NPY

Function	NPY is implicated in the control of feeding and in secretion of gonadotrophin-release hormone.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What are recombinant multiclonals?
Recombinant multiclonals are a mixture of recombinant antibodies co-expressed from a library of heavy and light chains. They offer several advantages including:

- The sensitivity of polyclonal antibodies by recognising multiple epitopes
- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

View our range of recombinant multiclonal antibodies.

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Neuropeptide Y (NPY) a 36 amino acid peptide functions mechanically as a neurotransmitter in the central and peripheral nervous systems. Alternate names include porcine peptide YY. The molecular weight of Neuropeptide Y is approximately 4 kDa. It expresses primarily in regions of the brain such as the hypothalamus and sympathetic nervous system as well as in other tissues including the heart adrenal glands and white adipose tissue.
Biological function summary	Neuropeptide Y plays an important role in regulating various physiological processes. It is not typically part of a complex but acts directly on specific receptors mainly Y1 Y2 Y4 and Y5. Neuropeptide Y affects food intake behavior stress response circadian rhythm and cardiovascular regulation. It does so by modulating the release of other neurotransmitters or hormones having a significant impact on energy balance and homeostasis.
Pathways	Neuropeptide Y plays a pivotal role in neurobiological signaling pathways especially those involving stress and energy homeostasis. In the hypothalamus NPY influences energy balance by interacting with the melanocortin pathway an important modulator of appetite and energy expenditure. It also interacts with proteins such as pro-opiomelanocortin (POMC) in these signaling pathways highlighting its integration into complex physiological processes that maintain homeostasis.
Associated diseases and disorders	Neuropeptide Y shows a significant connection to metabolic disorders and stress-related conditions. Dysregulation of NPY signaling has been implicated in obesity given its role in promoting food intake and energy storage. Additionally altered Neuropeptide Y activity links to anxiety and depression diseases involving stress-response dysregulation. Proteins like leptin which interacts with NPY in pathways governing hunger and energy allocation provide another layer of regulation affecting these conditions.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

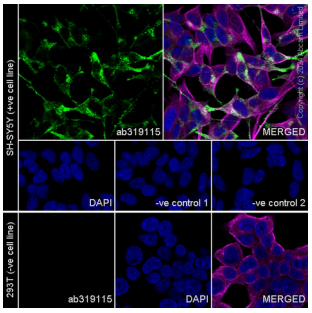
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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19 product images



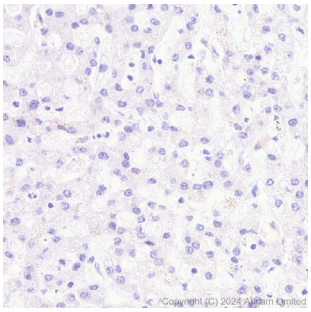
Immunocytochemistry/ Immunofluorescence - Anti-Neuropeptide Y antibody [RM1201] (ab319115)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized SH-SY5Y (human neuroblastoma epithelial cell) cells labelling Neuropeptide Y with ab319115 at 1/1000 (0.536 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2 ug/ml dilution (Green).

Confocal image showing cytoplasmic staining in SH-SY5Y cell line (shown in green). The counterstain was observed in magenta. Nuclear DNA was labeled with DAPI (shown in blue). Negative control: 293T.
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab7291 Anti-alpha Tubulin mouse monoclonal antibody was used to counterstain tubulin at 1/1000 1ug/ml dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/ml dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Neuropeptide Y antibody [RM1201] (ab319115)

Neuropeptide Y Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human liver using rabbit Anti-Neuropeptide Y antibody

Immunohistochemical analysis of paraffin-embedded Human liver tissue labeling Neuropeptide Y with ab319115 at 1/4000 (0.134 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

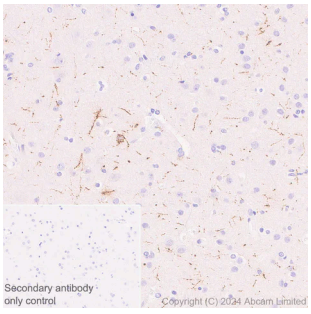
Low expression: no staining on human liver. The section was incubated with ab319115 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins

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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Neuropeptide Y antibody [RM1201] (ab319115)

Immunohistochemical analysis of paraffin-embedded Human cerebrum tissue labeling Neuropeptide Y with ab319115 at 1/4000 (0.134 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

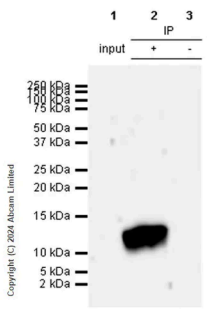
Positive staining on human cerebrum. The section was incubated with ab319115 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins

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Immunoprecipitation - Anti-Neuropeptide Y antibody [RM1201] (ab319115)

Neuropeptide Y was immunoprecipitated from 0.35 mg SH-SY5Y (human neuroblastoma epithelial cell) whole cell lysate with ab319115 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab319115 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(ab131366) was used at 1/5000 dilution.

Lane 1: SH-SY5Y (human neuroblastoma epithelial cell) whole cell lysate
Lane 2: ab319115 IP in SH-SY5Y (human neuroblastoma epithelial cell) whole cell lysate
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab319115 in SH-SY5Y whole cell lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST

All lanes:

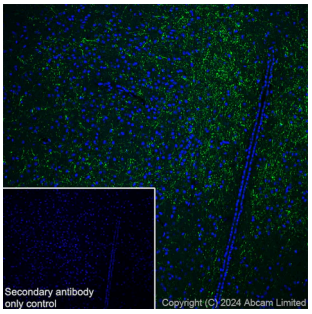
Immunoprecipitation - Anti-Neuropeptide Y antibody [RM1201] (ab319115) at 1/30 dilution

All lanes:
SH-SY5Y (human neuroblastoma epithelial cell) whole cell lysate

Secondary

All lanes:
Immunoprecipitation - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/5000 dilution

Exposure time: 119s

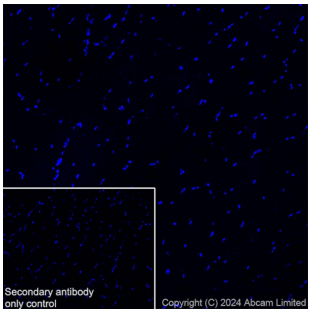


Immunohistochemistry (Frozen sections) - Anti-Neuropeptide Y antibody [RM1201] (ab319115)

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse paraventricular nucleus (perfused fixed) tissue labeling Neuropeptide Y with ab319115 at a 1/100 (5.36 µg/ml) dilution followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at a 1/1000 (2 µg/mL) dilution (Green)

Confocal image showing positive staining on mouse paraventricular nucleus. The nuclear counterstain was DAPI (Blue). The section was incubated with ab319115 for 60 mins at room temperature. The section was then mounted using Fluoromount®.The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 (2 µg/mL) dilution.

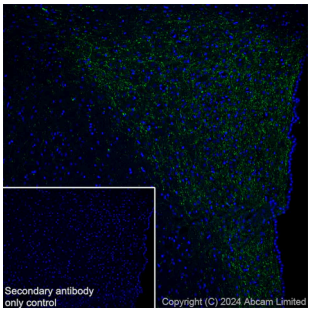


Immunohistochemistry (Frozen sections) - Anti-Neuropeptide Y antibody [RM1201] (ab319115)

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Rat skeletal muscle (perfused fixed) tissue labeling Neuropeptide Y with ab319115 at a 1/100 (5.36 µg/ml) dilution followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at a 1/1000 (2 µg/mL) dilution (Green)

Low expression: confocal image showing no staining on rat skeletal muscle. The nuclear counterstain was DAPI (Blue). The section was incubated with ab319115 for 60 mins at room temperature. The section was then mounted using Fluoromount®.The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 (2 µg/mL) dilution.

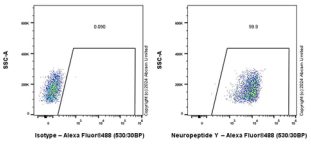


Immunohistochemistry (Frozen sections) - Anti-Neuropeptide Y antibody [RM1201] (ab319115)

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Rat paraventricular nucleus tissue labeling Neuropeptide Y with ab319115 at a 1/100 (5.36 µg/ml) dilution followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at a 1/1000 (2 µg/mL) dilution (Green)

Confocal image showing positive staining on rat paraventricular nucleus. The nuclear counterstain was DAPI (Blue). The section was incubated with ab319115 for 60 mins at room temperature. The section was then mounted using Fluoromount®.The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

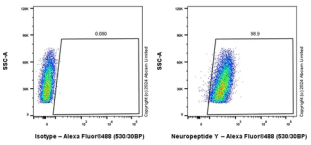
Secondary antibody control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 (2 µg/mL) dilution.



Flow Cytometry (Intracellular) - Anti-Neuropeptide Y antibody [RM1201] (ab319115)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized Rat primary neural/glia cell cells labelling Neuropeptide Y with ab319115 at 1/500 dilution (0.1ug) / Right compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody).

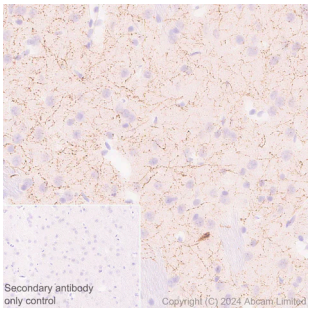
Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.



Flow Cytometry (Intracellular) - Anti-Neuropeptide Y antibody [RM1201] (ab319115)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized Mouse primary neural/glia cell cells labelling Neuropeptide Y with ab319115 at 1/50 dilution (1ug) / Right compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Neuropeptide Y antibody [RM1201] (ab319115)

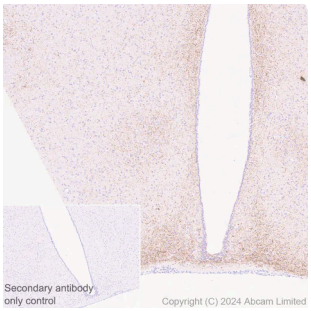
Immunohistochemical analysis of paraffin-embedded Rat cerebrum tissue labeling Neuropeptide Y with ab319115 at 1/2000 (0.268 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on rat cerebrum. The section was incubated with ab319115 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Neuropeptide Y antibody [RM1201] (ab319115)

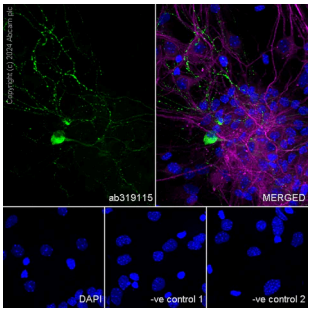
Immunohistochemical analysis of paraffin-embedded Rat hypothalamus tissue labeling Neuropeptide Y with ab319115 at 1/2000 (0.268 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on rat hypothalamus. The section was incubated with ab319115 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunocytochemistry/ Immunofluorescence - Anti-Neuropeptide Y antibody [RM1201] (ab319115)

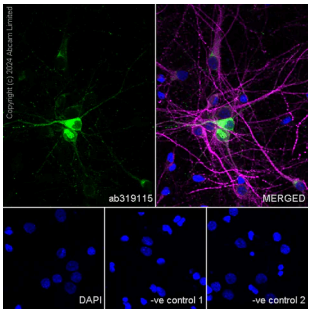
Neuropeptide Y Immunocytochemistry/ Immunofluorescence staining of mouse primary neural/glia cell using rabbit Anti-Neuropeptide Y antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized mouse primary neural/glia cell cells labelling Neuropeptide Y with ab319115 at 1/1000 (0.536 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2 ug/ml dilution (Green).

Confocal image showing cytoplasmic staining in mouse primary neuron (shown in green). The counterstain was observed in magenta. Nuclear DNA was labeled with DAPI (shown in blue). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab11267 Anti-MAP2 mouse monoclonal antibody was used to counterstain tubulin at 1/500 4ug/ml dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/ml dilution.



Immunocytochemistry/ Immunofluorescence - Anti-Neuropeptide Y antibody [RM1201] (ab319115)

Neuropeptide Y Immunocytochemistry/ Immunofluorescence staining of rat primary neural/glia cell using rabbit Anti-Neuropeptide Y antibody

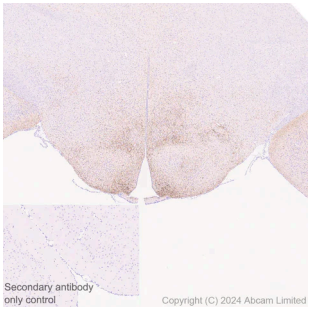
Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized rat primary neural/glia cell cells labelling Neuropeptide Y with ab319115 at 1/1000 (0.536 ug/ml)

dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2 ug/ml dilution (Green).

Confocal image showing cytoplasmic staining in rat primary neuron (shown in green). The counterstain was observed in magenta. Nuclear DNA was labeled with DAPI (shown in blue). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab11267 Anti-MAP2 mouse monoclonal antibody was used to counterstain tubulin at 1/500 4ug/ml dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Neuropeptide Y antibody [RM1201] (ab319115)

Immunohistochemical analysis of paraffin-embedded Mouse hypothalamus tissue labeling Neuropeptide Y with ab319115 at 1/2000 (0.268 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

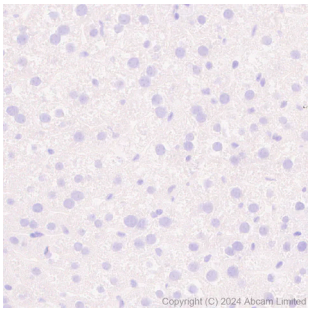
Positive staining on mouse hypothalamus. The section was incubated with ab319115 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins

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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Neuropeptide Y antibody [RM1201] (ab319115)

Neuropeptide Y Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse liver using rabbit Anti-Neuropeptide Y antibody

Immunohistochemical analysis of paraffin-embedded Mouse liver tissue labeling Neuropeptide Y with ab319115 at 1/2000 (0.268 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

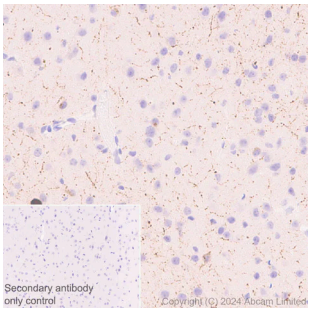
Low expression: no staining on mouse liver. The section was incubated with ab319115 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

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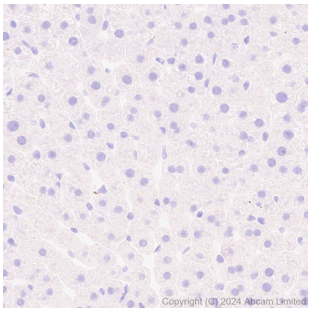
Positive staining on mouse cerebrum. The section was incubated with ab319115 for 30 mins at room temperature.
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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Neuropeptide Y antibody [RM1201] (ab319115)

Neuropeptide Y Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Rat liver using rabbit Anti-Neuropeptide Y antibody

Immunohistochemical analysis of paraffin-embedded Rat liver tissue labeling Neuropeptide Y with ab319115 at 1/2000 (0.268 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

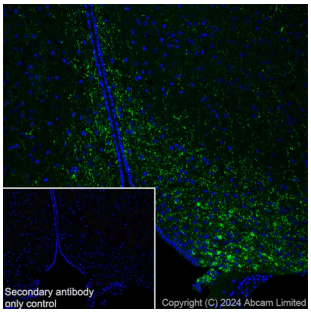
Low expression: no staining on rat liver. The section was incubated with ab319115 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

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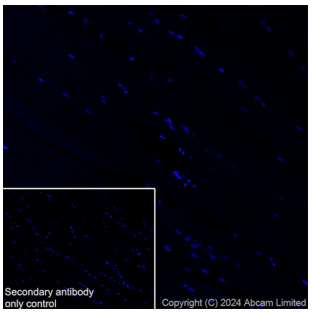


Immunohistochemistry (Frozen sections) - Anti-Neuropeptide Y antibody [RM1201] (ab319115)

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse arcuate nucleus (perfused fixed) tissue labeling Neuropeptide Y with ab319115 at a 1/100 (5.36 µg/ml) dilution followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at a 1/1000 (2 µg/mL) dilution (Green)

Confocal image showing positive staining on mouse arcuate nucleus. The nuclear counterstain was DAPI (Blue). The section was incubated with ab319115 for 60 mins at room temperature. The section was then mounted using Fluoromount®.The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 (2 µg/mL) dilution.



Immunohistochemistry (Frozen sections) - Anti-Neuropeptide Y antibody [RM1201] (ab319115)

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse skeletal muscle (perfused fixed) tissue labeling Neuropeptide Y with ab319115 at a 1/100 (5.36 µg/ml) dilution followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at a 1/1000 (2 µg/mL) dilution (Green)

Low expression: confocal image showing no staining on mouse skeletal muscle. The nuclear counterstain was DAPI (Blue). The section was incubated with ab319115 for 60 mins at room temperature. The section was then mounted using Fluoromount®.The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 (2 µg/mL) dilution.

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