abcam

ab314484

Anti-Tyrosine Hydroxylase (phospho S31) antibody [EPR26192-116]

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	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR26192-116
Purification technique	Affinity purification Protein A
Concentration	0.514 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Mouse
Dilution info	1/6000

Notes	Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Species	Rat
Dilution info	1/6000
Notes	Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Not recommended

Species	Human, Synthetic peptide
Dilution info	-
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Rat
Dilution info	1/1000
Notes	-

Not recommended

Species	Human, Synthetic peptide
Dilution info	-
Notes	-

IP

Tested

Species	Mouse

Dilution info	1/30
Notes	-

Species	Rat
Dilution info	1/30
Notes	-

Not recommended

Species	Human, Synthetic peptide
Dilution info	-
Notes	-

Dot

Tested

Species	Synthetic peptide
Dilution info	1/1000
Notes	-

Expected

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

Not recommended

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Rat
Dilution info	1/500
Notes	-

Not recommended

Species	Mouse, Human, Synthetic peptide
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Mouse, Rat, Human, Synthetic peptide
Dilution info	-
Notes	-

IHC-Fr

Not recommended

Species	Mouse, Rat, Human, Synthetic peptide
Dilution info	-
Notes	-

Target data

See full target information Th pS31

Function	Catalyzes the conversion of L-tyrosine to L-dihydroxyphenylalanine (L-Dopa), the rate-limiting step in the biosynthesis of catecholamines, dopamine, noradrenaline, and adrenaline. Uses tetrahydrobiopterin and molecular oxygen to convert tyrosine to L-Dopa (By similarity). In addition to tyrosine, is able to catalyze the hydroxylation of phenylalanine and tryptophan with lower specificity (By similarity). Positively regulates the regression of retinal hyaloid vessels during postnatal development (PubMed:30936473).

Storage

Shipped at conditions	Conditional Ambient
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

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.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

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

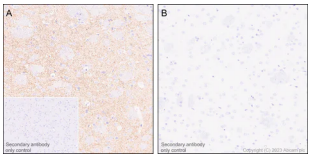
We do not recommend this combination. It is not covered by our product promise.

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.

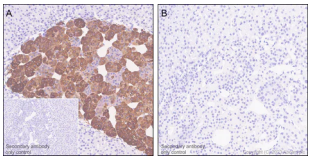
Full details and terms and conditions can be found here:
Terms & Conditions.

10 product images



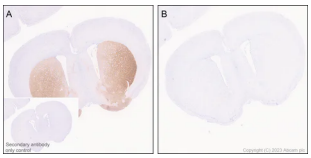
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tyrosine Hydroxylase (phospho S31) antibody [EPR26192-116] (ab314484)

Immunohistochemical analysis of paraffin-embedded Rat cerebrum tissue labeling Tyrosine Hydroxylase (phospho S31) with ab314484 at 1/6000 (0.086 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Cytoplasmic staining on rat cerebrum without alkaline phosphatase treatment (A). No signal was detected when tissues were treated with alkaline phosphatase (B). The section was incubated with ab314484 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument.Incubate slides with 3% Hydrogen Peroxide for 10 mins at room temperature after secondary antibody incubation to reduce the background. 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 Citrate buffer (pH 6.0, Epitope Retrieval Solution 1) for 20 mins



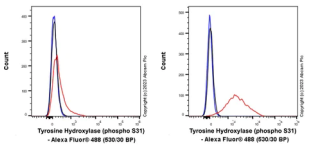
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tyrosine Hydroxylase (phospho S31) antibody [EPR26192-116] (ab314484)

Immunohistochemical analysis of paraffin-embedded Mouse adrenal gland tissue labeling Tyrosine Hydroxylase (phospho S31) with ab314484 at 1/6000 (0.086 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Cytoplasmic staining on mouse adrenal gland without alkaline phosphatase treatment (A). No signal was detected when tissues were treated with alkaline phosphatase (B). The section was incubated with ab314484 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument.Incubate slides with 3% Hydrogen Peroxide for 10 mins at room temperature after secondary antibody incubation to reduce the background. 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 Citrate buffer (pH 6.0, Epitope Retrieval Solution 1) for 20 mins



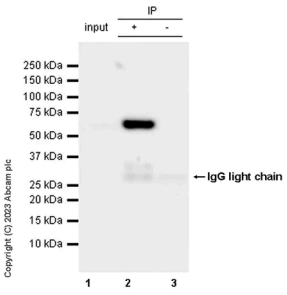
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Flow Cytometry (Intracellular) - Anti-Tyrosine Hydroxylase (phospho S31) antibody [EPR26192-116] (ab314484)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized PC-12 (rat adrenal gland pheochromocytoma cell) treated with phosphatase at 37☒ overnight (Left) / Untreated PC-12 (Right) cells labelling Tyrosine Hydroxylase (phospho S31) with ab314484 at 1/500 dilution (0.1 ug)/Red and Green (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.



Immunoprecipitation - Anti-Tyrosine Hydroxylase (phospho S31) antibody [EPR26192-116] (ab314484)

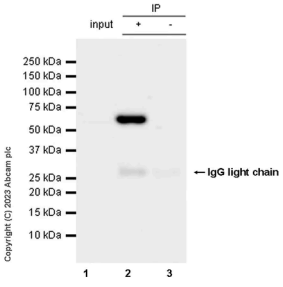
Tyrosine Hydroxylase (phospho S31) was immunoprecipitated from 0.35 mg Mouse brain tissue lysate with ab314484 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab314484 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP) (ab131366) was used at 1/5000 dilution. Lane 1: Mouse brain tissue lysate Lane 2: ab314484 IP in Mouse brain tissue lysate Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab314484 in mouse brain tissue lysate Blocking and dilution buffer and concentration: 5% NFDM/TBST.
All lanes:
Immunoprecipitation - Anti-Tyrosine Hydroxylase (phospho S31) antibody [EPR26192-116] (ab314484) at 1/30 dilution

All lanes:
Mouse brain tissue lysate

Secondary

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

Exposure time: 32s



Immunoprecipitation - Anti-Tyrosine Hydroxylase (phospho S31) antibody [EPR26192-116] (ab314484)

Tyrosine Hydroxylase (phospho S31) was immunoprecipitated from 0.35 mg Rat brain tissue lysate with ab314484 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab314484 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP) (ab131366) was used at 1/5000 dilution. Lane 1: Rat brain tissue lysate Lane 2: ab314484 IP in Rat

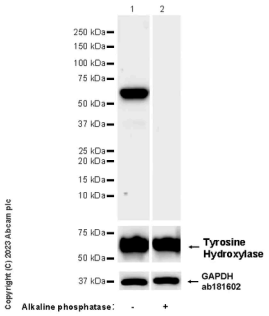
brain tissue lysate Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab314484 in rat brain tissue lysate Blocking and dilution buffer and concentration: 5% NFDM/TBST.
All lanes:
Immunoprecipitation - Anti-Tyrosine Hydroxylase (phospho S31) antibody [EPR26192-116] (ab314484) at 1/30 dilution

All lanes:
Rat brain tissue lysate

Secondary

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

Exposure time: 32s



Western blot - Anti-Tyrosine Hydroxylase (phospho S31) antibody [EPR26192-116] (ab314484)

Blocking and diluting buffer and concentration: 5% NFDM/TBST In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution. In Western blot, Anti-Tyrosine Hydroxylase antibody staining at 1/1000 dilution
All lanes:
Western blot - Anti-Tyrosine Hydroxylase (phospho S31) antibody [EPR26192-116] (ab314484) at 1/1000 dilution

Lane 1:
PC-12 (rat adrenal gland pheochromocytoma cell) whole cell lysate (untreated membrane) at 20 µg

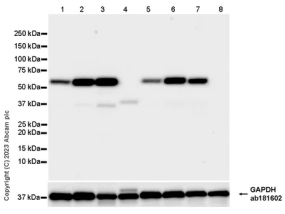
Lane 2:
PC-12 whole cell lysate (phosphatase treated membrane) at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Observed band size: 60 kDa

Exposure time: 37s



Western blot - Anti-Tyrosine Hydroxylase (phospho S31) antibody [EPR26192-116] (ab314484)

Blocking and diluting buffer and concentration: 5% NFDM/TBST Negative control: liver. The identity of the band around 37 kDa is unknown. In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.
All lanes:
Western blot - Anti-Tyrosine Hydroxylase (phospho S31) antibody [EPR26192-116] (ab314484) at 1/1000 dilution

Lane 1:
Mouse brain tissue lysate at 20 µg

Lane 2:
Mouse striatum tissue lysate at 20 µg

Lane 3:
Mouse adrenal gland tissue lysate at 20 µg

Lane 4:
Mouse liver tissue lysate at 20 µg

Lane 5:
Rat brain tissue lysate at 20 µg

Lane 6:
Rat striatum tissue lysate at 20 µg

Lane 7:
Rat adrenal gland tissue lysate at 20 µg

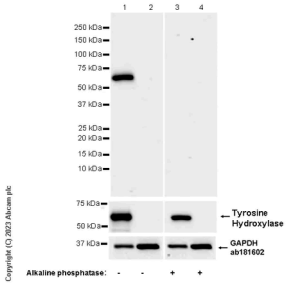
Lane 8:
Rat liver tissue lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Observed band size: 60 kDa

Exposure time: 15s



Western blot - Anti-Tyrosine Hydroxylase (phospho S31) antibody [EPR26192-116] (ab314484)

Blocking and diluting buffer and concentration: 5% NFDM/TBST Negative control: liver In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution. In Western blot, Anti-Tyrosine Hydroxylase antibody staining at 1/1000 dilution
All lanes:
Western blot - Anti-Tyrosine Hydroxylase (phospho S31) antibody [EPR26192-116] (ab314484) at 1/1000 dilution

Lane 1:
Mouse adrenal gland tissue lysate (untreated membrane) at 20 µg

Lane 2:
Mouse liver tissue lysate (untreated membrane) at 20 µg

Lane 3:
Mouse adrenal gland tissue lysate (phosphatase treated membrane) at 20 µg

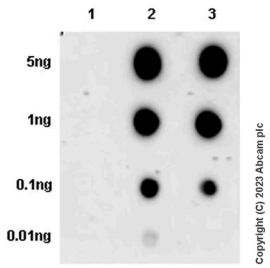
Lane 4:
Mouse liver tissue lysate (phosphatase treated membrane) at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Observed band size: 60 kDa

Exposure time: 37s



Dot Blot - Anti-Tyrosine Hydroxylase (phospho S31) antibody [EPR26192-116] (ab314484)

Dot blot analysis of Tyrosine Hydroxylase (phospho S31) using ab314484 at 1:1000 (0.514 ug/ml) followed by a Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1:100,000 dilution. Exposure time: 180 seconds Blocking and diluting buffer and concentration: 5% NFDM/TBST

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.