

# Anti-Dopamine Transporter antibody [EPR19695] ab184451

Recombinant RabMAb

[12 References](#) [13 Images](#)

### Overview

<b>Product name</b>	Anti-Dopamine Transporter antibody [EPR19695]
<b>Description</b>	Rabbit monoclonal [EPR19695] to Dopamine Transporter
<b>Host species</b>	Rabbit
<b>Specificity</b>	Human species is recommended based on IHC-P results, we do not guarantee IHC-Fr, WB and IP for human.
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P, IHC-Fr, IP <b>Unsuitable for:</b> ICC
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: Unboiled Mouse and rat striatum lysates. IHC-P: Mouse and rat striatum tissues, normal human striatum, normal human substantia nigra. IHC-Fr: Mouse brain (Coronal section), rat brain (sagittal section). IP: Mouse striatum whole cell lysate.
<b>General notes</b>	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA</p>

<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR19695
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab184451 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

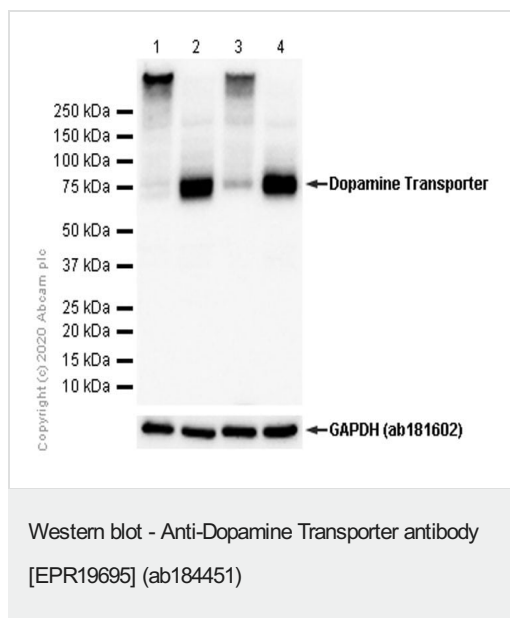
Application	Abreviews	Notes
<b>WB</b>		1/1000. Detects a band of approximately 70-85 kDa (predicted molecular weight: 69 kDa).
<b>IHC-P</b>		1/250. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
<b>IHC-Fr</b>		1/500.
<b>IP</b>		1/30.

**Application notes** Is unsuitable for ICC.

## Target

<b>Function</b>	Amine transporter. Terminates the action of dopamine by its high affinity sodium-dependent reuptake into presynaptic terminals.
<b>Involvement in disease</b>	Defects in SLC6A3 are the cause of dystonia-parkinsonism infantile (DYTPRI) [MIM:613135]. It is a neurodegenerative disorder characterized by infantile onset of parkinsonism and dystonia. Other neurologic features include global developmental delay, bradikinesia and pyramidal tract signs.
<b>Sequence similarities</b>	Belongs to the sodium:neurotransmitter symporter (SNF) (TC 2.A.22) family. SLC6A3 subfamily.
<b>Cellular localization</b>	Membrane.

## Images



**All lanes :** Anti-Dopamine Transporter antibody [EPR19695] (ab184451) at 1/1000 dilution

**Lane 1 :** Mouse striatum lysate boiled

**Lane 2 :** Mouse striatum lysate unboiled

**Lane 3 :** Rat striatum lysate boiled

**Lane 4 :** Rat striatum lysate unboiled

Lysates/proteins at 20 µg per lane.

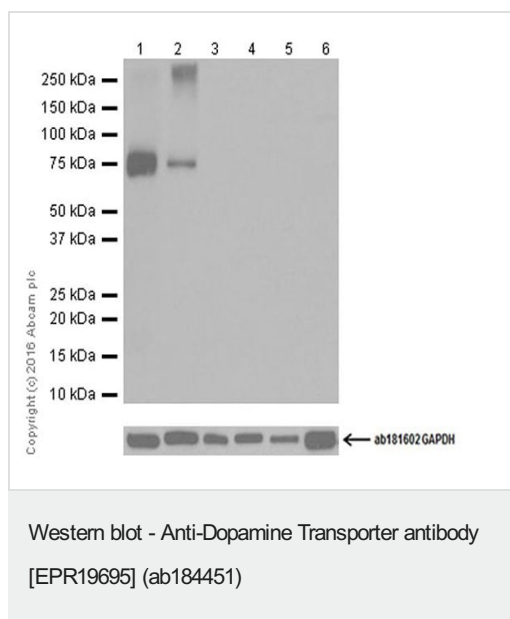
### Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

**Predicted band size:** 69 kDa

We recommend not to boil the samples after lysis to get desired WB results.

[ab181602](#) was used as a GAPDH loading control.



**All lanes :** Anti-Dopamine Transporter antibody [EPR19695] (ab184451) at 1/1000 dilution

**Lane 1 :** Mouse striatum lysate

**Lane 2 :** Rat striatum lysate

**Lane 3 :** Mouse kidney lysate

**Lane 4 :** Rat liver lysate

**Lane 5 :** Neuro-2a (Mouse neuroblastoma cell line) whole cell lysate

**Lane 6 :** C6 (Rat glial tumor cell line) whole cell lysate

Lysates/proteins at 20 µg per lane.

### Secondary

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

**Predicted band size:** 69 kDa

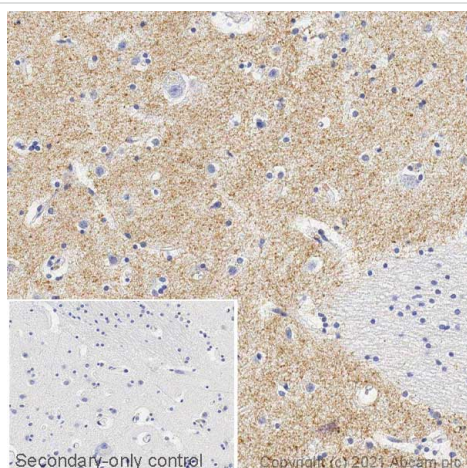
**Observed band size:** 70-85 kDa

**Exposure time:** 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.

**ab181602** was used as GAPDH loading control.

Dopamine transporters are distributed widely across the brain in regions with high dopaminergic activity, such as the striatum and substantia nigra (PMID:1765147), so non-related tissues and cells were chosen as negative controls; and DAT is a glycoprotein with molecular weight of 70-85KD (PMID:25356398, PMID: 20643191).



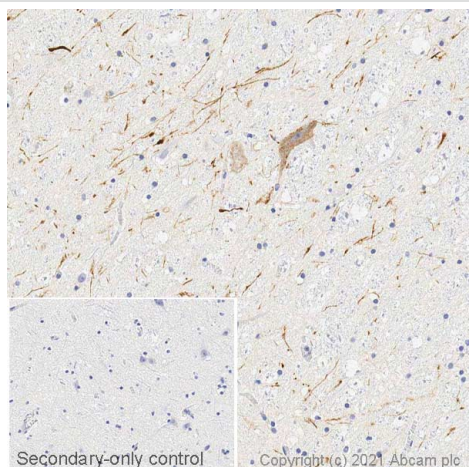
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Dopamine Transporter antibody [EPR19695] (ab184451)

IHC image of Dopamine Transporter staining in a section of formalin fixed paraffin embedded normal human striatum\* performed on a Leica BOND™. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20mins. The section was fixed in 10% paraformaldehyde (10 min) prior to staining. The section was incubated with ab184451, 5ug/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen.

The section was then counterstained with haematoxylin and mounted with DPX. The inset secondary-only control image is taken from an identical assay without primary antibody.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

\*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre

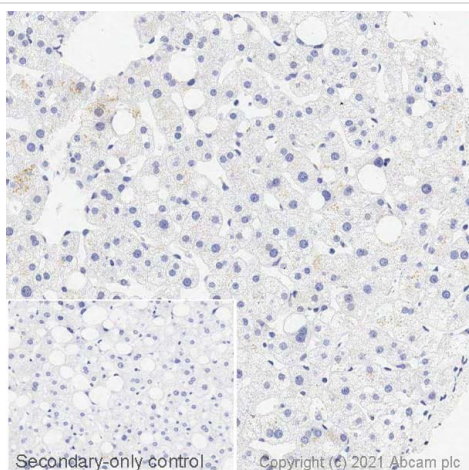


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Dopamine Transporter antibody [EPR19695] (ab184451)

IHC image of Dopamine Transporter staining in a section of formalin fixed paraffin embedded normal human substantia nigra\* performed on a Leica BOND™. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20mins. The section was incubated with ab184451, 5ug/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset secondary-only control image is taken from an identical assay without primary antibody.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

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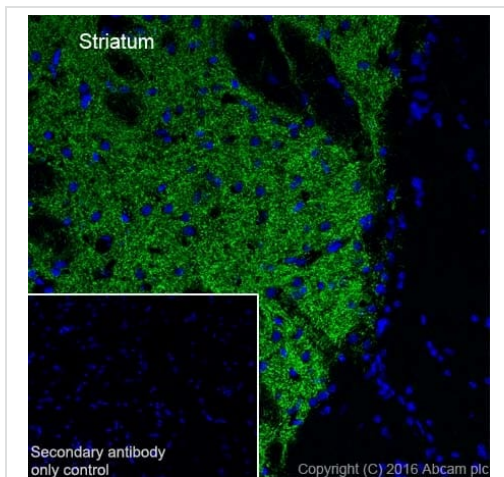
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Dopamine Transporter antibody [EPR19695] (ab184451)

**Negative control image:** IHC image of Dopamine Transporter staining in a section of formalin fixed paraffin embedded normal human liver\* performed on a Leica BOND™. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20mins..The section was incubated with ab184451, 5ug/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset secondary-only control image is taken from an identical assay without primary antibody.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

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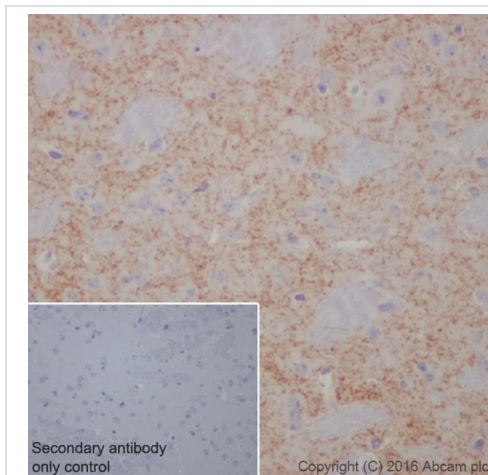
Immunohistochemistry (Frozen sections) - Anti-Dopamine Transporter antibody [EPR19695] (ab184451)

Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen Rat brain (sagittal section) tissue labeling Dopamine Transporter with ab184451 at 1/500 dilution, followed by Goat Anti-Rabbit IgG (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green).

The result showed cytoplasmic staining on rat striatum.

The nuclear counterstain is DAPI (blue).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is **ab150077** at 1/1000 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Dopamine Transporter antibody [EPR19695] (ab184451)

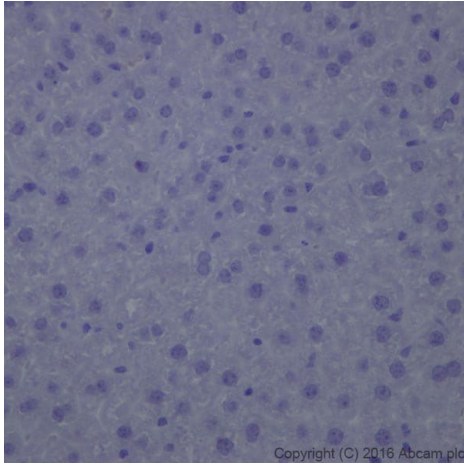
Immunohistochemical analysis of paraffin-embedded Mouse striatum tissue labeling Dopamine Transporter with ab184451 at 1/250 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution.

Membrane and cytoplasm staining on mouse striatum is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is **ab97051** at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



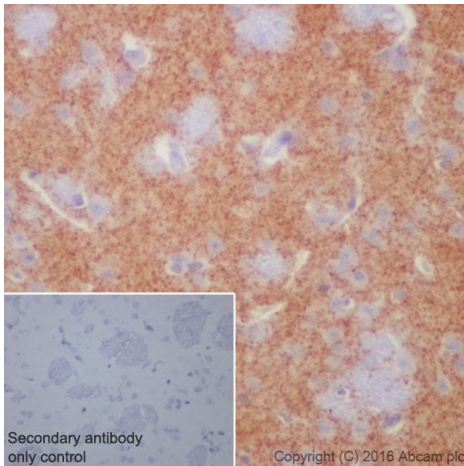
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Dopamine Transporter antibody [EPR19695] (ab184451)

Immunohistochemical analysis of paraffin-embedded Mouse liver tissue labeling Dopamine Transporter with ab184451 at 1/250 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution.

Counter stained with Hematoxylin.

**Negative control:** Negative staining on mouse liver.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Dopamine Transporter antibody [EPR19695] (ab184451)

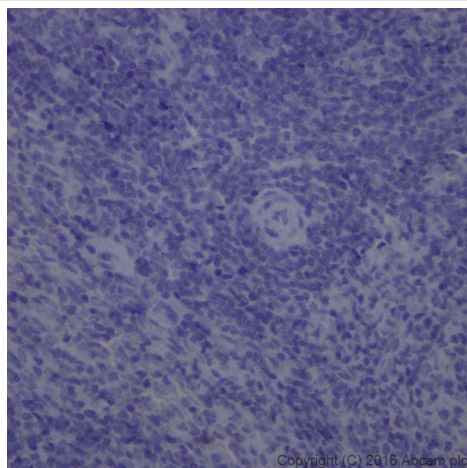
Immunohistochemical analysis of paraffin-embedded Rat striatum tissue labeling Dopamine Transporter with ab184451 at 1/250 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution.

Cytoplasm staining on rat striatum is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is [ab97051](#) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



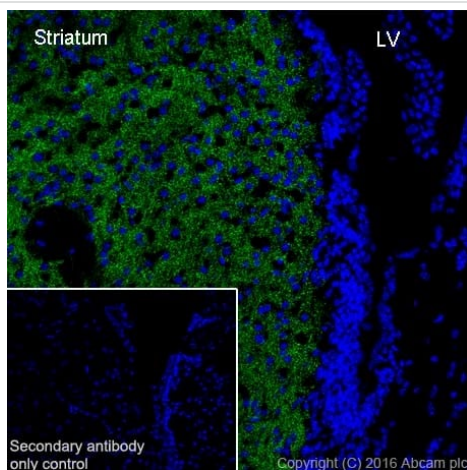
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Dopamine Transporter antibody [EPR19695] (ab184451)

Immunohistochemical analysis of paraffin-embedded Rat spleen tissue labeling Dopamine Transporter with ab184451 at 1/250 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution.

Counter stained with Hematoxylin.

**Negative control:** Negative staining on rat spleen.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Frozen sections) - Anti-Dopamine Transporter antibody [EPR19695] (ab184451)

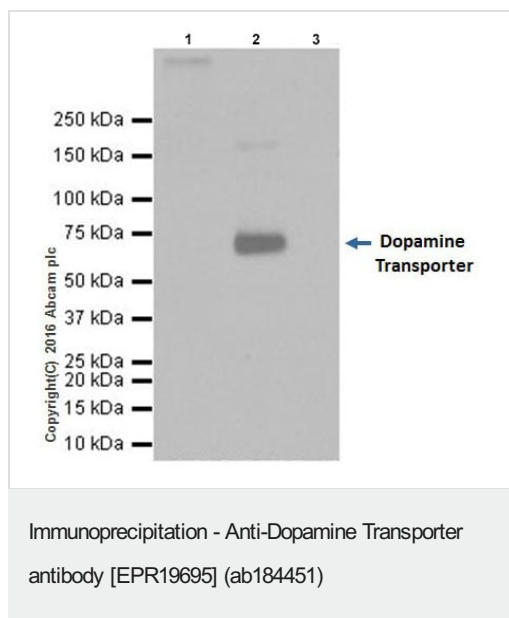
Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen Mouse brain (Coronal section) tissue labeling Dopamine Transporter with ab184451 at 1/500 dilution, followed by Goat Anti-Rabbit IgG (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green).

The result showed cytoplasmic staining on mouse striatum but negative on lateral ventricle (LA).

The nuclear counterstain is DAPI (blue).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is **ab150077** at 1/1000 dilution.





Dopamine Transporter was immunoprecipitated from 0.35mg of Mouse striatum whole cell lysate with ab184451 at 1/30 dilution.

Western blot was performed from the immunoprecipitate using ab184451 at 1/1000 dilution.

VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)), was used for detection at 1/10000 dilution.

Lane 1: Mouse striatum whole cell lysate, 10µg (Input).

Lane 2: ab184451 IP in Mouse striatum whole cell lysate.

Lane 3: Rabbit IgG, monoclonal [EPR25A] - Isotype Control ([ab172730](#)) instead of ab184451 in Mouse striatum whole cell lysate.

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

Exposure time: 30 seconds.

Why choose a recombinant antibody?

- Research with confidence**  
Consistent and reproducible results
- Long-term and scalable supply**  
Recombinant technology
- Success from the first experiment**  
Confirmed specificity
- Ethical standards compliant**  
Animal-free production

Anti-Dopamine Transporter antibody [EPR19695] (ab184451)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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