abcam

Product datasheet

Anti-ABAT/GABA-T antibody [EPR20842] ab216465

Recombinant RabMAb

3 References 16 Images

Overview

Product name	Anti-ABAT/GABA-T antibody [EPR20842]
Description	Rabbit monoclonal [EPR20842] to ABAT/GABA-T
Host species	Rabbit
Tested applications	**Suitable for:** ICC/IF, Flow Cyt (Intra), WB, IHC-P, IHC-Fr, IP
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: MCF7, HepG2 and SH-SY5Y whole cell lysate; Human brain and fetal liver lysate; Mouse brain and liver lysate; Rat liver and brain lysate. IHC-P: Human kidney and breast cancer tissue; Mouse testis tissue; Rat liver tissue. IHC-Fr: Mouse cerebellum and liver tissue; Mouse and rat choroid plexus tissue. ICC/IF: MCF7 and HepG2 cells. Flow: HepG2 and MCF7 cells. IP: MCF7 whole cell lysate.
General notes	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 production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	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.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal

Clone number	EPR20842
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab216465 in the following tested applications.

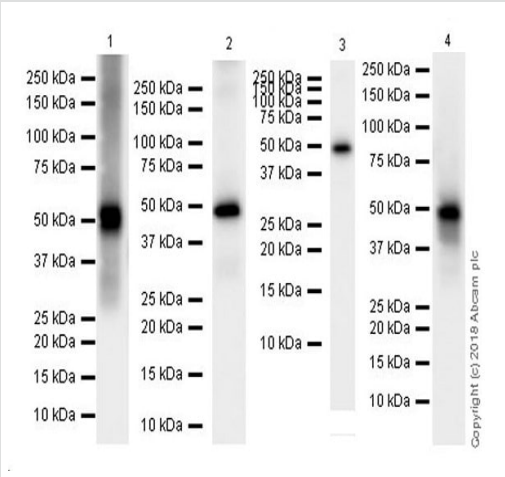
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		1/100.
Flow Cyt (Intra)		1/60.
WB		1/1000. Predicted molecular weight: 56 kDa.
IHC-P		1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IHC-Fr		1/500.
IP		1/30.

Target

Function	Catalyzes the conversion of gamma-aminobutyrate and L-beta-aminoisobutyrate to succinate semialdehyde and methylmalonate semialdehyde, respectively. Can also convert delta-aminovalerate and beta-alanine.
Tissue specificity	Liver > pancreas > brain > kidney > heart > placenta.
Involvement in disease	Defects in ABAT are a cause of gamma-aminobutyrate transaminase deficiency (GABA-AT deficiency) [MIM:613163]. The phenotype of this deficiency includes psychomotor retardation, hypotonia, hyperreflexia, lethargy, refractory seizures, and EEG abnormalities.
Sequence similarities	Belongs to the class-III pyridoxal-phosphate-dependent aminotransferase family.
Cellular localization	Mitochondrion matrix.

Images



Western blot - Anti-ABAT/GABA-T antibody [EPR20842] (ab216465)

All lanes : Anti-ABAT/GABA-T antibody [EPR20842] (ab216465) at 1/1000 dilution

Lane 1 : Mouse liver lysate
Lane 2 : Rat liver lysate
Lane 3 : Rat brain lysate
Lane 4 : Human fetal liver lysate

Lysates/proteins at 10 µg per lane.

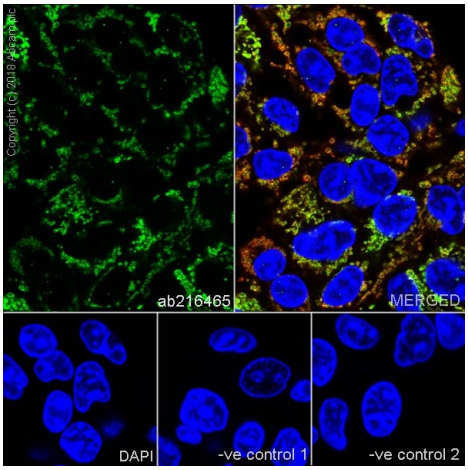
Secondary
Lanes 1-2 : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution
Lane 3 : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution
Lane 4 : VeriBlot for IP Detection Reagent (HRP) (**ab131366**) at 1/1000 dilution

Predicted band size: 56 kDa

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

Exposure time: Lanes 1 and 2: 3 seconds; Lane 3: 5 seconds; Lane 4: 26 seconds.

The observed molecular mass is consistent with what has been described in the literature (PMID: 11459221).



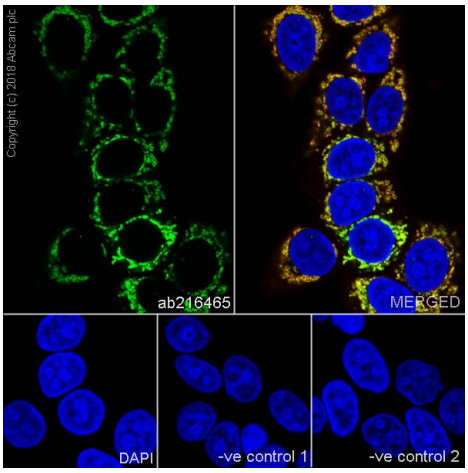
Immunocytochemistry/ Immunofluorescence - Anti-ABAT/GABA-T antibody [EPR20842] (ab216465)

Immunofluorescent analysis of 100% methanol-fixed HepG2 (human hepatocellular carcinoma epithelial cell) cells labeling ABAT/GABA-T with ab216465 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 (green). Confocal image showing mitochondrial staining in HepG2 cell line is observed. The nuclear counter stain is DAPI (blue).

Mitochondria are stained with **ab33985** Anti-COX IV (mouse mAb) - Mitochondrial Marker followed by **ab150120** AlexaFluor®594 Goat anti-Mouse secondary both at 1/1000 dilution (red).

-ve control 1: ab216465 at 1/100 dilution followed by **ab150120** (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution.

-ve control 2: **ab33985** Anti-COX IV (mouse mAb) - Mitochondrial Marker at 1/1000 dilution followed by **ab150077** (AlexaFluor®488 Goat anti-Rabbit secondary) at 1/1000 dilution.



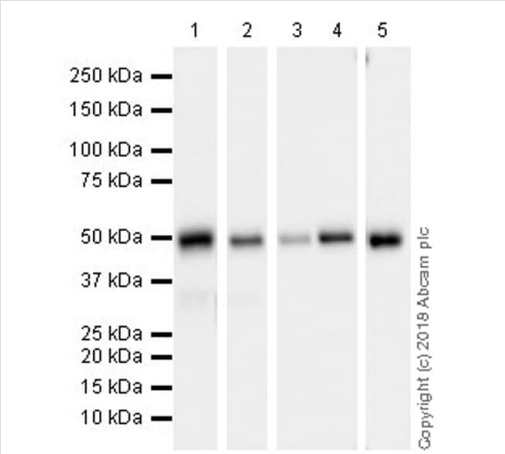
Immunocytochemistry/ Immunofluorescence - Anti-ABAT/GABA-T antibody [EPR20842] (ab216465)

Immunofluorescent analysis of 100% methanol-fixed MCF7 (human breast adenocarcinoma epithelial cell) cells labeling ABAT/GABA-T with ab216465 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 (green). Confocal image showing mitochondrial staining in MCF7 cell line. The nuclear counter stain is DAPI (blue).

Mitochondria are stained with **ab33985** Anti-COX IV (mouse mAb) - Mitochondrial Marker followed by **ab150120** AlexaFluor®594 Goat anti-Mouse secondary both at 1/1000 dilution (red).

-ve control 1: ab216465 at 1/100 dilution followed by **ab150120** (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution.

-ve control 2: **ab33985** Anti-COX IV (mouse mAb) - Mitochondrial Marker at 1/1000 dilution followed by **ab150077** (AlexaFluor®488 Goat anti-Rabbit secondary) at 1/1000 dilution.



Western blot - Anti-ABAT/GABA-T antibody [EPR20842] (ab216465)

All lanes : Anti-ABAT/GABA-T antibody [EPR20842] (ab216465) at 1/1000 dilution

Lane 1 : Mouse brain lysate
Lane 2 : Human brain lysate
Lane 3 : MCF7 (human breast adenocarcinoma epithelial cell) whole cell lysate
Lane 4 : HepG2 (human hepatocellular carcinoma epithelial cell) whole cell lysate
Lane 5 : SH-SY5Y (human neuroblastoma epithelial cell) whole cell lysate

Lysates/proteins at 20 µg per lane.

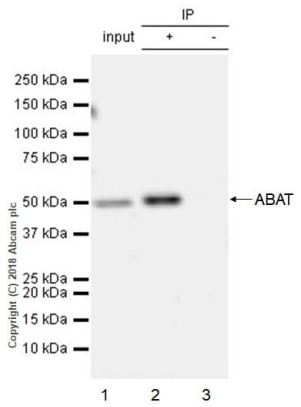
Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Predicted band size: 56 kDa

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

Exposure time: Lane 1,2,3 and 4: 6 seconds; Lane 5: 92 seconds.

The observed molecular mass is consistent with what has been described in the literature (PMID: 11459221).



Immunoprecipitation - Anti-ABAT/GABA-T antibody [EPR20842] (ab216465)

ABAT/GABA-T was immunoprecipitated from 0.35 mg MCF7 (Human breast adenocarcinoma epithelial cell) whole cell lysate with ab216465 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab216465 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/5,000 dilution

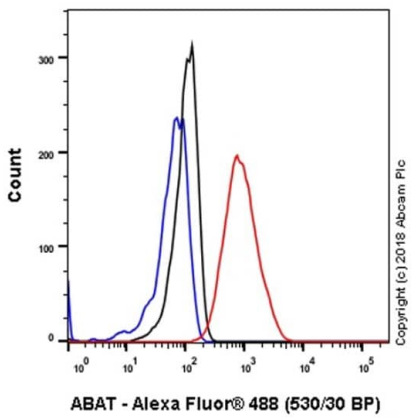
Lane 1: MCF7 (Human breast adenocarcinoma epithelial cell) whole cell lysate 10 µg (Input).

Lane 2: ab216465 IP in MCF7 whole cell lysate (+).

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab216465 in MCF7 whole cell lysate (-).

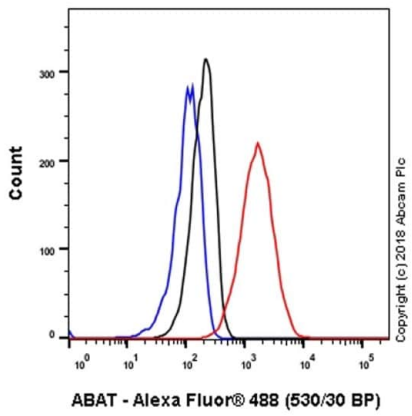
Blocking/Dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 minutes.



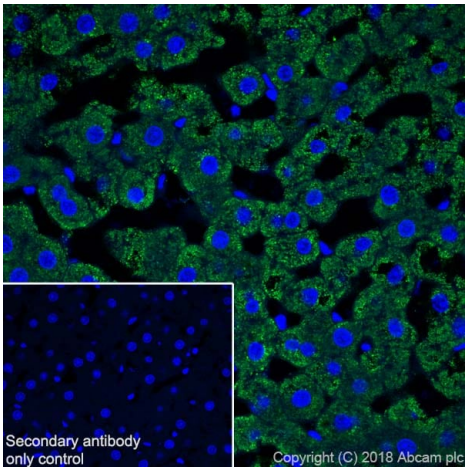
Flow Cytometry (Intracellular) - Anti-ABAT/GABA-T antibody [EPR20842] (ab216465)

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized MCF7 (Human breast adenocarcinoma epithelial cell) cells labeling ABAT/GABA-T with ab216465 at 1/600 (red) compared with a Rabbit monoclonal IgG (**ab172730**) (black) and an unlabelled control (cellsincubated with secondary antibody only) (blue). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**), at 1/2000 dilution was used as the secondary antibody.



Flow Cytometry (Intracellular) - Anti-ABAT/GABA-T antibody [EPR20842] (ab216465)

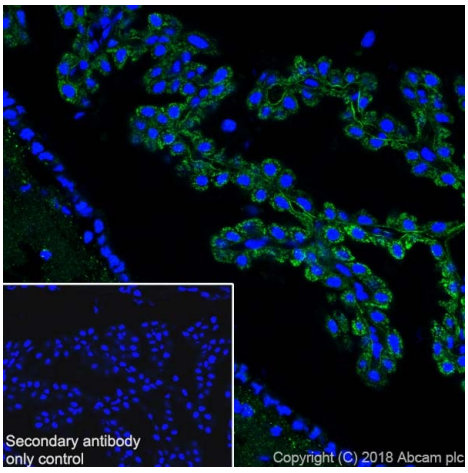
Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized HepG2 (Human hepatocellular carcinoma epithelial cell) cell line labeling ABAT/GABA-T with ab216465 at 1/60 (red) compared with a Rabbit monoclonal IgG (**ab172730**) (black) and an unlabelled control (cellsincubated with secondary antibody only) (blue). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**), at 1/2000 dilution was used as the secondary antibody.



Immunohistochemistry (Frozen sections) - Anti-ABAT/GABA-T antibody [EPR20842] (ab216465)

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen mouse liver tissue labeling ABAT/GABA-T with ab216465 at 1/500 dilution (green), followed by **ab150077** AlexaFluor®488 Goat anti-Rabbit secondary at a 1/1000 dilution. Cytoplasmic staining in rat liver is observed. Counter stained with DAPI (blue).
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is **ab150077** AlexaFluor®488 Goat anti-Rabbit used at a 1/1000 dilution.

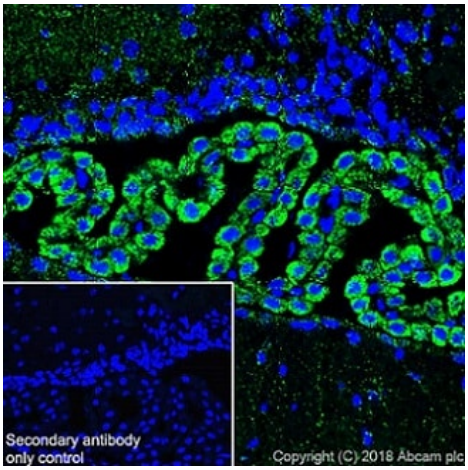
Perform heat-mediated antigen retrieval by using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).



Immunohistochemistry (Frozen sections) - Anti-ABAT/GABA-T antibody [EPR20842] (ab216465)

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen rat choroid plexus tissue labeling ABAT/GABA-T with ab216465 at 1/500 dilution (green), followed by **ab150077** AlexaFluor®488 Goat anti-Rabbit secondary at a 1/1000 dilution. Cytoplasmic staining in rat choroid plexus (PMID:25239459, PMID: 11459221) is observed. Counter stained with DAPI (blue).
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is **ab150077** AlexaFluor®488 Goat anti-Rabbit used at a 1/1000 dilution.

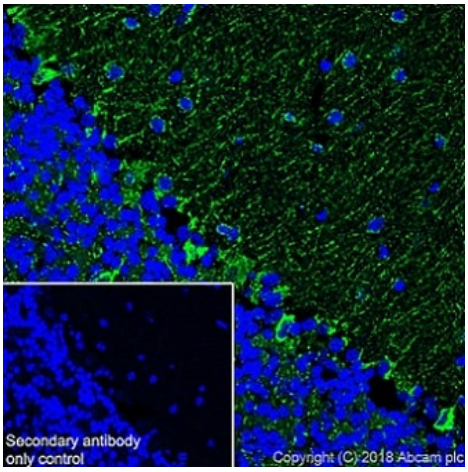
Perform heat-mediated antigen retrieval by using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).



Immunohistochemistry (Frozen sections) - Anti-ABAT/GABA-T antibody [EPR20842] (ab216465)

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen mouse choroid plexus tissue labeling ABAT/GABA-T with ab216465 at 1/500 dilution (green), followed by **ab150077** AlexaFluor®488 Goat anti-Rabbit secondary at a 1/1000 dilution. Cytoplasmic staining in mouse choroid plexus (PMID:25239459, PMID: 11459221) is observed. Counter stained with DAPI (blue).
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is **ab150077** AlexaFluor®488 Goat anti-Rabbit used at a 1/1000 dilution.

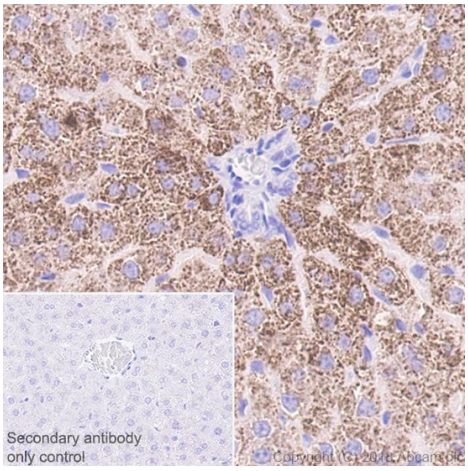
Perform heat-mediated antigen retrieval by using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).



Immunohistochemistry (Frozen sections) - Anti-ABAT/GABA-T antibody [EPR20842] (ab216465)

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen mouse cerebellum tissue labeling ABAT/GABA-T with ab216465 at 1/500 dilution (green), followed by **ab150077** AlexaFluor®488 Goat anti-Rabbit secondary at a 1/1000 dilution. Cytoplasmic staining in mouse cerebellum (PMID:25239459, PMID: 11459221) is observed. Counter stained with DAPI (blue).
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is **ab150077** AlexaFluor®488 Goat anti-Rabbit used at a 1/1000 dilution.

Perform heat-mediated antigen retrieval by using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).

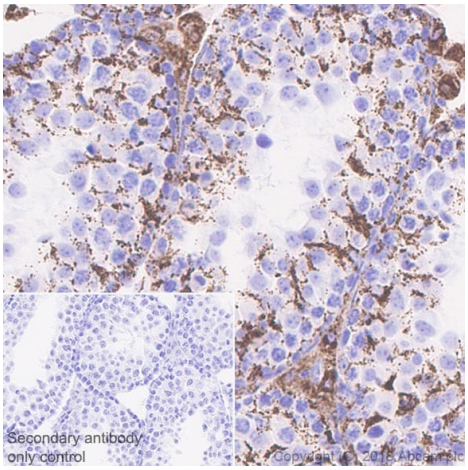


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ABAT/GABA-T antibody [EPR20842] (ab216465)

Immunohistochemical analysis of paraffin-embedded rat liver tissue labeling ABAT/GABA-T with ab216465 at 1/500 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Granular cytoplasmic staining in rat liver (PMID: 25771305; PMID: 25738457) is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0).

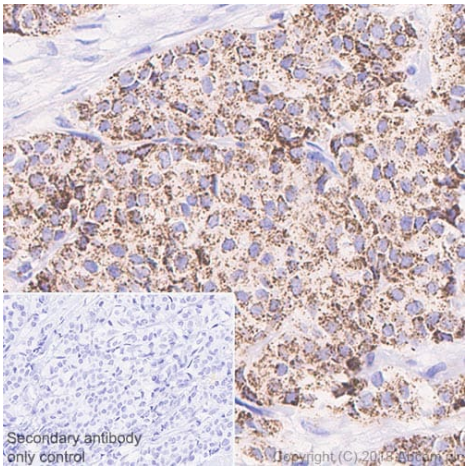


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ABAT/GABA-T antibody [EPR20842] (ab216465)

Immunohistochemical analysis of paraffin-embedded mouse testis tissue labeling ABAT/GABA-T with ab216465 at 1/500 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Granular cytoplasmic staining in mouse testis (PMID: 25771305; PMID: 25738457) is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0).

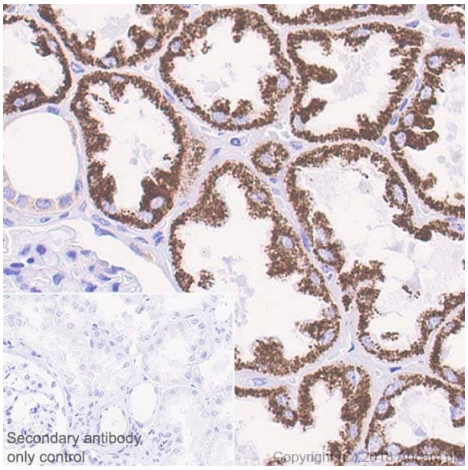


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ABAT/GABA-T antibody [EPR20842] (ab216465)

Immunohistochemical analysis of paraffin-embedded human breast cancer tissue labeling ABAT/GABA-T with ab216465 at 1/500 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Granular cytoplasmic staining in human breast cancer (PMID: 25771305; PMID: 25738457) is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0).

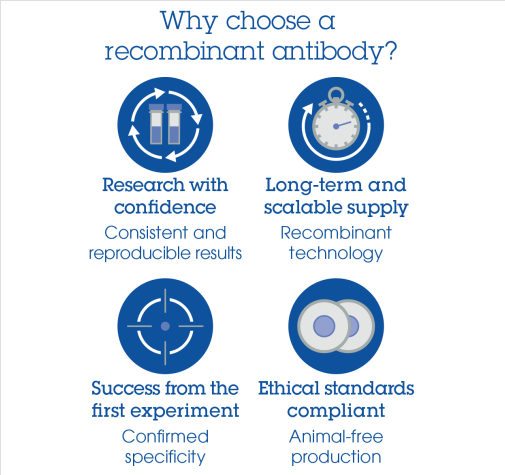


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ABAT/GABA-T antibody [EPR20842] (ab216465)

Immunohistochemical analysis of paraffin-embedded human kidney tissue labeling ABAT/GABA-T with ab216465 at 1/500 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Granular cytoplasmic staining in human kidney (PMID: 25771305; PMID: 25738457) is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0).



Anti-ABAT/GABA-T antibody [EPR20842]

(ab216465)

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