abcam

Product datasheet

Anti-ABAT/GABA-T antibody [EPR20842] - BSA and Azide free ab233702

Recombinant RabMAb

14 Images

Overview

Product name	Anti-ABAT/GABA-T antibody [EPR20842] - BSA and Azide free
Description	Rabbit monoclonal [EPR20842] to ABAT/GABA-T - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), WB, IHC-P, IHC-Fr, IP, ICC/IF
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	IHC-P: Human kidney tissue.
General notes	ab233702 is the carrier-free version of **ab216465**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes

Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR20842
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab233702 in the following tested applications.

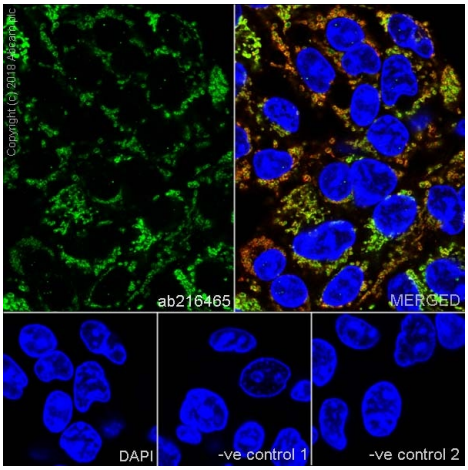
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Predicted molecular weight: 56 kDa.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IHC-Fr		Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.

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



Immunocytochemistry/ Immunofluorescence - Anti-ABAT/GABA-T antibody [EPR20842] - BSA and Azide free (ab233702)

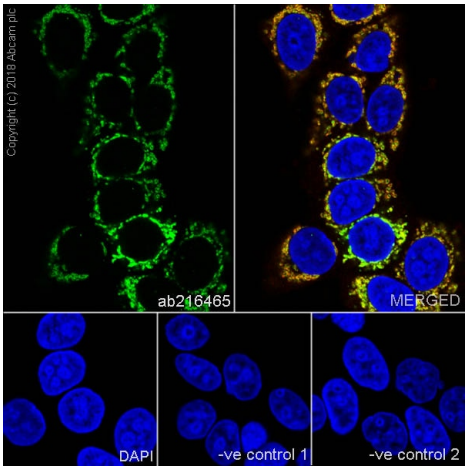
Immunofluorescent analysis of 100% methanol-fixed HepG2 (human hepatocellular carcinoma epithelial cell) cells labeling ABAT/GABA-T with **ab216465** at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 (green). Confocal image showing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

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab216465**).



Immunocytochemistry/ Immunofluorescence - Anti-ABAT/GABA-T antibody [EPR20842] - BSA and Azide free (ab233702)

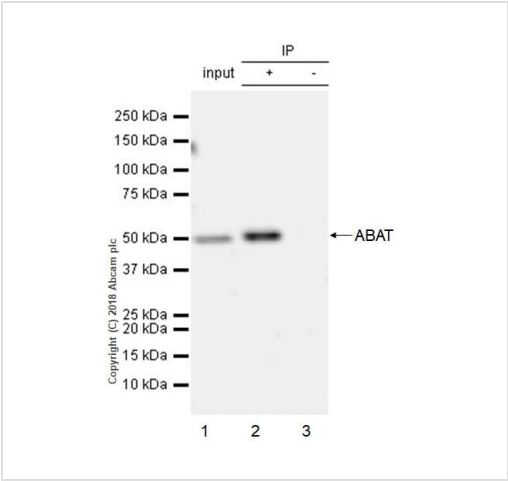
Immunofluorescent analysis of 100% methanol-fixed MCF7 (human breast adenocarcinoma epithelial cell) cells labeling ABAT/GABA-T with **ab216465** at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 (green). Confocal image showing mitochondrial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

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab216465**).



Immunoprecipitation - Anti-ABAT/GABA-T antibody [EPR20842] - BSA and Azide free (ab233702)

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 1/5000 dilution.

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

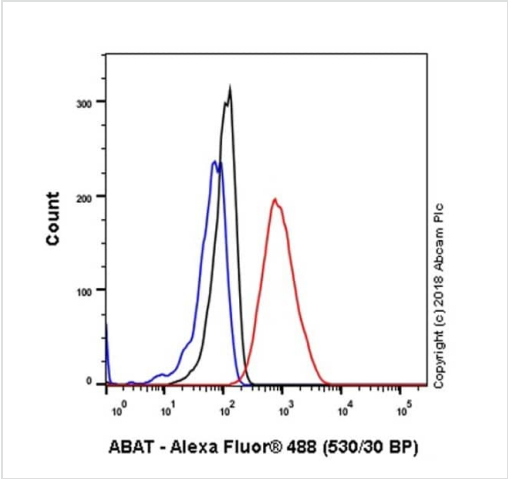
Lane 2: **ab216465** IP in MCF7 whole cell lysate (+).

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.

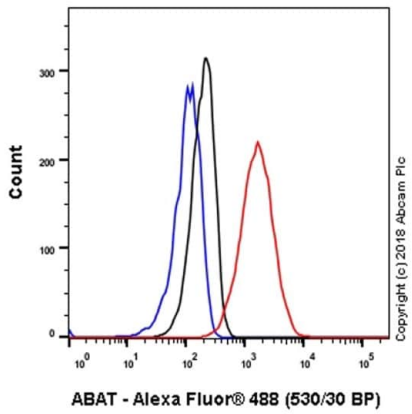
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab216465**).



Flow Cytometry (Intracellular) - Anti-ABAT/GABA-T antibody [EPR20842] - BSA and Azide free (ab233702)

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.

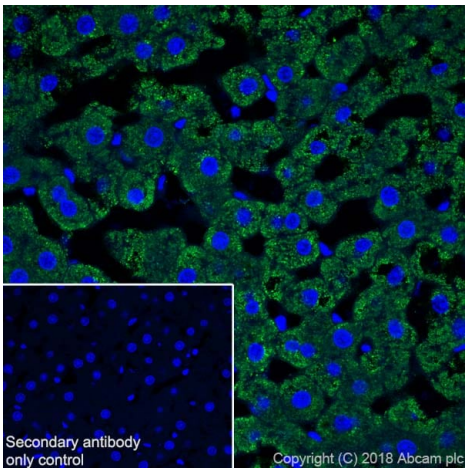
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab216465**).



Flow Cytometry (Intracellular) - Anti-ABAT/GABA-T antibody [EPR20842] - BSA and Azide free (ab233702)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab216465**).

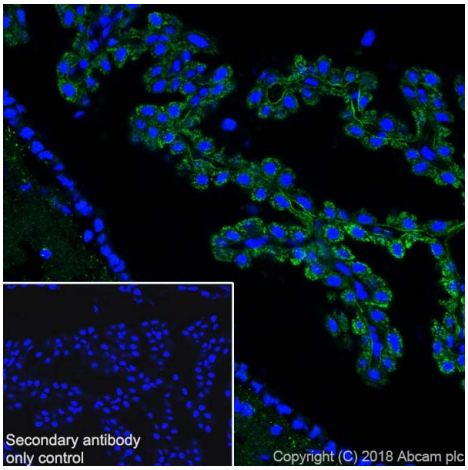


Immunohistochemistry (Frozen sections) - Anti-ABAT/GABA-T antibody [EPR20842] - BSA and Azide free (ab233702)

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).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab216465**).

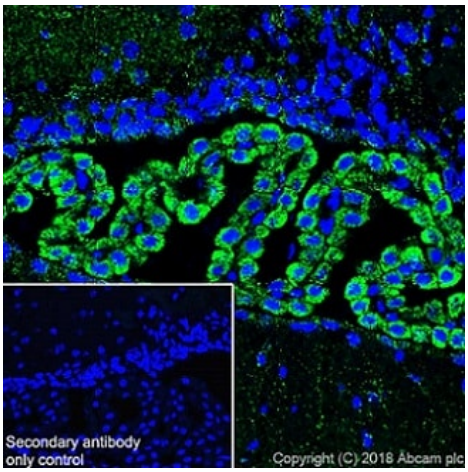


Immunohistochemistry (Frozen sections) - Anti-ABAT/GABA-T antibody [EPR20842] - BSA and Azide free (ab233702)

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).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab216465**).



Immunohistochemistry (Frozen sections) - Anti-ABAT/GABA-T antibody [EPR20842] - BSA and Azide free (ab233702)

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).
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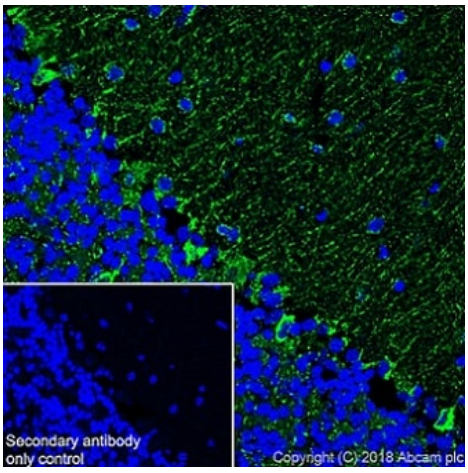
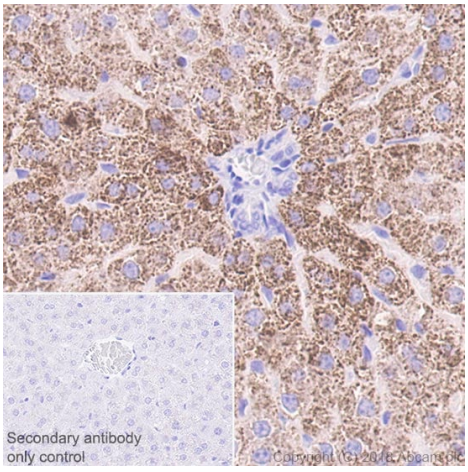


Immunohistochemistry (Frozen sections) - Anti-ABAT/GABA-T antibody [EPR20842] - BSA and Azide free (ab233702)

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).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab216465**).



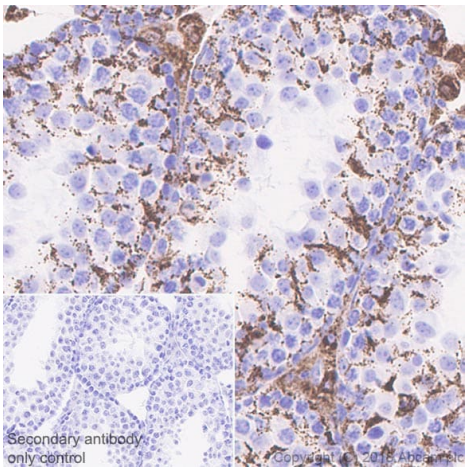
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ABAT/GABA-T antibody [EPR20842] - BSA and Azide free (ab233702)

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).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab216465**).



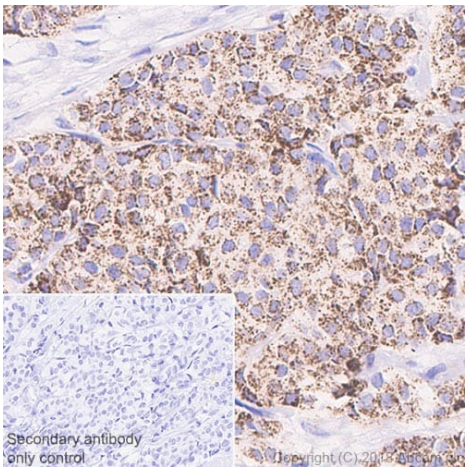
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ABAT/GABA-T antibody [EPR20842] - BSA and Azide free (ab233702)

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).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab216465**).



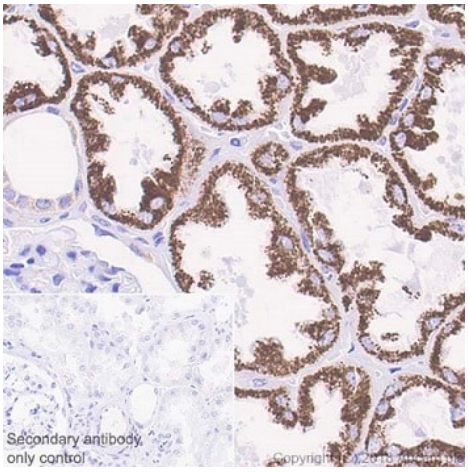
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ABAT/GABA-T antibody [EPR20842] - BSA and Azide free (ab233702)

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).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab216465**).



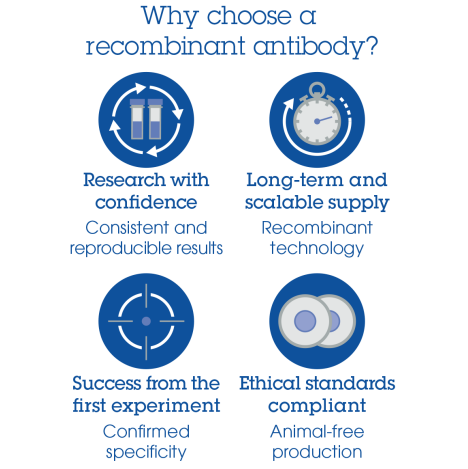
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ABAT/GABA-T antibody [EPR20842] - BSA and Azide free (ab233702)

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).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab216465**).



Anti-ABAT/GABA-T antibody [EPR20842] - BSA and Azide free (ab233702)

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