

## Product datasheet

### Anti-HCE antibody [EPR19384] ab201046

Recombinant RabMAb

★★★★★ **5 Abreviews** 10 Images

#### Overview

<b>Product name</b>	Anti-HCE antibody [EPR19384]
<b>Description</b>	Rabbit monoclonal [EPR19384] to HCE
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P, WB, IP, ICC/IF
<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: Human fetal liver and fetal kidney lysates; Ramos, HepG2, SH-SY5Y, HeLa, C6, RAW 264.7, PC-12 and NIH/3T3 whole cell lysates; Mouse brain, kidney and spleen lysates; Rat brain and kidney lysates. IHC-P: Mouse cerebral cortex and rat spleen tissues. ICC/IF: HeLa and NIH/3T3 cells. IP: SH-SY5Y 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® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb® 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>	EPR19384

Isotype

IgG

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab201046 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
IHC-P		1/250. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. The IHC application is recommended for mouse and rat only.
WB	★★★★★ (5)	1/2000. Detects a band of approximately 69 kDa (predicted molecular weight: 69 kDa).
IP		1/50.
ICC/IF		1/500.

## Target

### Function

Bifunctional mRNA-capping enzyme exhibiting RNA 5'-triphosphatase activity in the N-terminal part and mRNA guanylyltransferase activity in the C-terminal part. Catalyzes the first two steps of cap formation: by removing the gamma-phosphate from the 5'-triphosphate end of nascent mRNA to yield a diphosphate end, and by transferring the gmp moiety of GTP to the 5'-diphosphate terminus.

### Tissue specificity

Isoform 1 and isoform 4 (at a lesser extent) are expressed in cerebrum, cerebellum, thyroid, lung, heart, liver, kidney, spleen, large intestine, testis, skin and muscle.

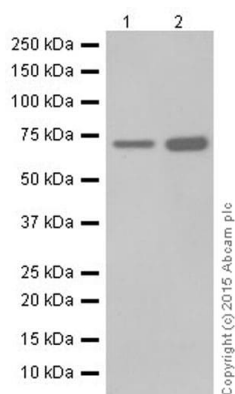
### Sequence similarities

In the N-terminal section; belongs to the non-receptor class of the protein-tyrosine phosphatase family.  
In the C-terminal section; belongs to the eukaryotic GTase family.

### Cellular localization

Nucleus.

## Images



Western blot - Anti-HCE antibody [EPR19384]  
(ab201046)

**All lanes** : Anti-HCE antibody [EPR19384] (ab201046) at 1/2000 dilution

**Lane 1** : Human fetal liver lysate

**Lane 2** : Human fetal kidney lysate

Lysates/proteins at 10 µg per lane.

#### Secondary

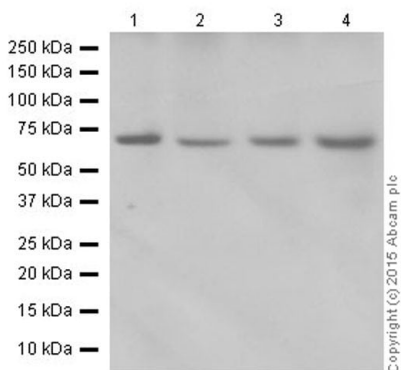
**All lanes** : Goat Anti-Rabbit IgG Peroxidase Conjugate, specific to the non-reduced form of IgG at 1/10000 dilution

**Predicted band size:** 69 kDa

**Observed band size:** 69 kDa

**Exposure time:** 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot - Anti-HCE antibody [EPR19384]  
(ab201046)

**All lanes** : Anti-HCE antibody [EPR19384] (ab201046) at 1/2000 dilution

**Lane 1** : Ramos (Human Burkitt's lymphoma cell line) whole cell lysate

**Lane 2** : HepG2 (Human liver hepatocellular carcinoma cell line) whole cell lysate

**Lane 3** : SH-SY5Y (Human neuroblastoma cell line from bone marrow) whole cell lysate

**Lane 4** : HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate

Lysates/proteins at 20 µg per lane.

## Secondary

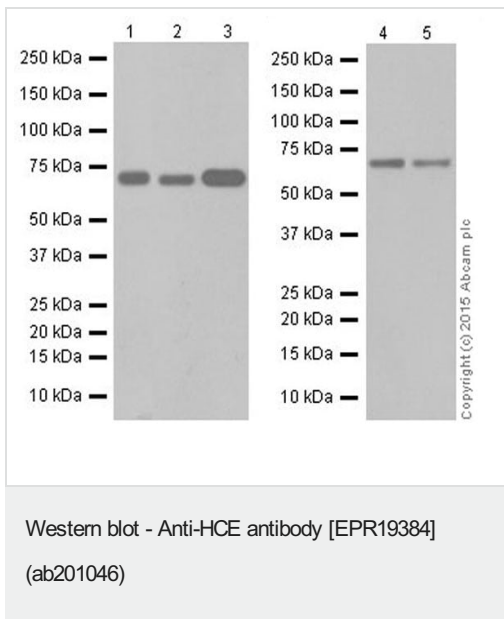
**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

**Predicted band size:** 69 kDa

**Observed band size:** 69 kDa

**Exposure time:** 1 minute

Blocking/Dilution buffer: 5% NFDM/TBST.



**All lanes :** Anti-HCE antibody [EPR19384] (ab201046) at 1/2000 dilution

**Lane 1 :** Mouse brain lysate

**Lane 2 :** Mouse kidney lysate

**Lane 3 :** Mouse spleen lysate

**Lane 4 :** Rat brain lysate

**Lane 5 :** Rat kidney lysate

Lysates/proteins at 10 µg per lane.

## Secondary

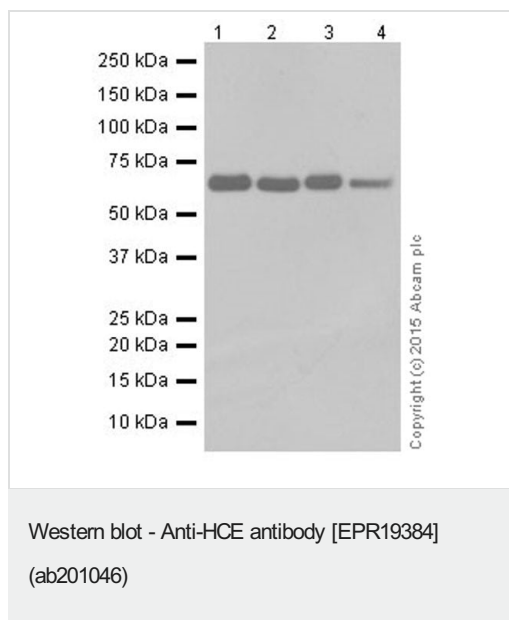
**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

**Predicted band size:** 69 kDa

**Observed band size:** 69 kDa

**Exposure time:** 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.



**All lanes** : Anti-HCE antibody [EPR19384] (ab201046) at 1/2000 dilution

**Lane 1** : C6 (Rat glial tumor cell line) whole cell lysate

**Lane 2** : RAW 264.7 (Mouse macrophage cell line transformed with Abelson murine leukemia virus) whole cell lysate

**Lane 3** : PC-12 (Rat adrenal gland pheochromocytoma cell line) whole cell lysate

**Lane 4** : NIH/3T3 (Mouse embryonic fibroblast cell line) whole cell lysate

Lysates/proteins at 10 µg per lane.

### Secondary

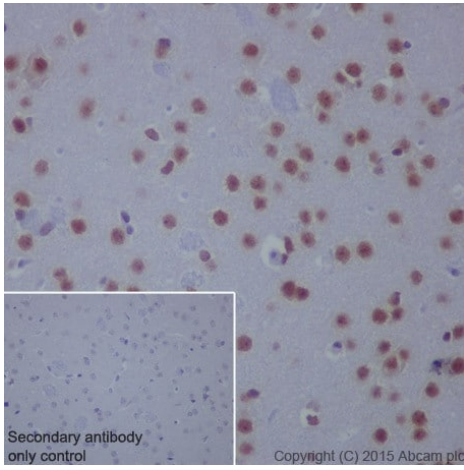
**All lanes** : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

**Predicted band size:** 69 kDa

**Observed band size:** 69 kDa

**Exposure time:** 30 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.

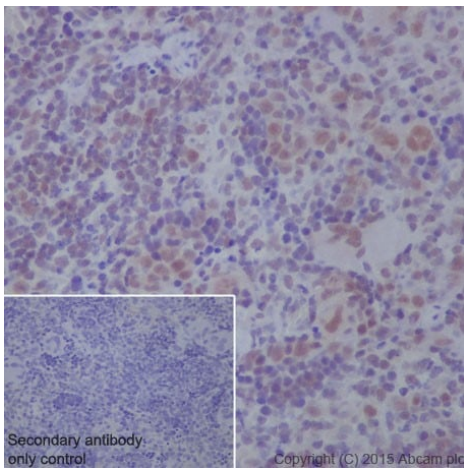


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HCE antibody [EPR19384] (ab201046)

Immunohistochemical analysis of paraffin-embedded Mouse cerebral cortex tissue labeling HCE with ab201046 at 1/250 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution. Nucleus staining on neurons of mouse cerebral cortex is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution.

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

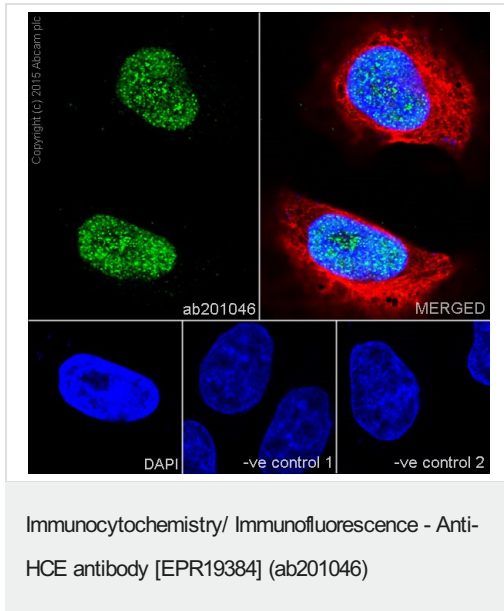


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HCE antibody [EPR19384] (ab201046)

Immunohistochemical analysis of paraffin-embedded Rat spleen tissue labeling HCE with ab201046 at 1/250 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution. Nucleus staining on lymphocytes of rat spleen is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution.

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



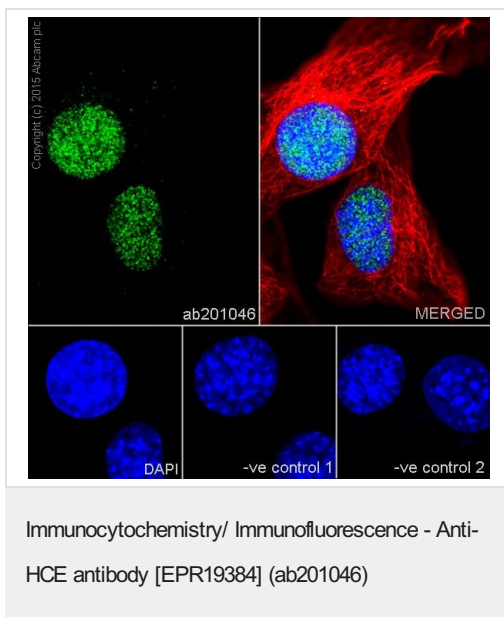
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (Human epithelial cell line from cervix adenocarcinoma) cells labeling HCE with ab201046 at 1/500 dilution, followed by Goat Anti-Rabbit IgG (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Confocal image showing nuclear staining on HeLa cell line. The nuclear counter stain is DAPI (blue).

Tubulin is detected with Anti-alpha Tubulin antibody [EPR19384] - Loading Control (**ab7291**) at 1/1000 dilution and Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) preadsorbed (**ab150120**) at 1/1000 dilution (red).

The negative controls are as follows:

-ve control 1: ab201046 at 1/500 dilution followed by **ab150120** at 1/1000 dilution.

-ve control 2: **ab7291** at 1/1000 dilution followed by **ab150077** at 1/1000 dilution.



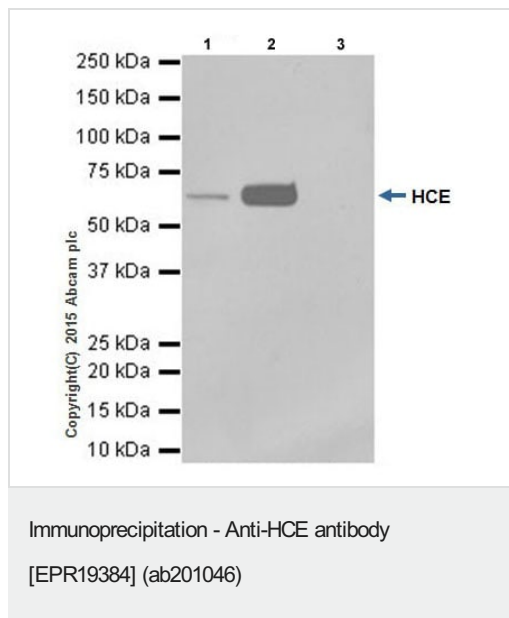
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized NIH/3T3 (Mouse embryonic fibroblast cell line) cells labeling HCE with ab201046 at 1/500 dilution, followed by Goat Anti-Rabbit IgG (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Confocal image showing nuclear staining on NIH/3T3 cell line. The nuclear counter stain is DAPI (blue).

Tubulin is detected with Anti-alpha Tubulin antibody [EPR19384] - Loading Control (**ab7291**) at 1/1000 dilution and Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) preadsorbed (**ab150120**) at 1/1000 dilution (red).

The negative controls are as follows:

-ve control 1: ab201046 at 1/500 dilution followed by **ab150120** at 1/1000 dilution.

-ve control 2: **ab7291** (anti-Tubulin mouse mAb) at 1/1000 dilution followed by **ab150077** at 1/1000 dilution.



HCE was immunoprecipitated from 1mg of SH-SY5Y (Human neuroblastoma cell line from bone marrow) whole cell lysate with ab201046 at 1/50 dilution. Western blot was performed from the immunoprecipitate using ab201046 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)), was used for detection at 1/10000 dilution.

Lane 1: SH-SY5Y whole cell lysate 10µg (Input).





Lane 2: ab201046 IP in SH-SY5Y whole cell lysate.

Lane 3: Rabbit IgG, monoclonal [EPR19384] -Isotype Control ([ab172730](#)) instead of ab201046 in SH-SY5Y whole cell lysate.

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

Exposure time: 30 seconds.

Why choose a recombinant antibody?

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

Anti-HCE antibody [EPR19384] (ab201046)

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

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