

## Product datasheet

### Anti-GSK3 alpha antibody [EP793Y] ab40870


KO VALIDATED

Recombinant

RabMAb

[14 References](#) [6 Images](#)

#### Overview

Product name	Anti-GSK3 alpha antibody [EP793Y]
Description	Rabbit monoclonal [EP793Y] to GSK3 alpha
Host species	Rabbit
Tested applications	<b>Suitable for:</b> ICC/IF, WB, IHC-P
Species reactivity	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse, Rat 
Immunogen	Synthetic peptide within Human GSK3 alpha aa 50-150 (N terminal). The exact sequence is proprietary. Database link: <a href="#">P49840</a>
Positive control	WB: HAP1, HEK293T, HepG2 and HeLa cell lysate. IHC-P: Human breast carcinoma tissue. ICC/IF: HeLa cells
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: <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> For more information <a href="#">see here</a> . 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> .

#### Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.20 Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant
Purity	Protein A purified
Clonality	Monoclonal

**Clone number** EP793Y

**Isotype** IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab40870 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

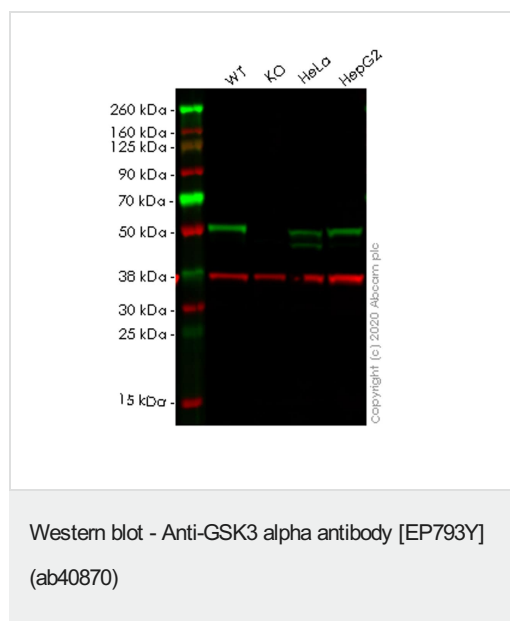
Application	Abreviews	Notes
ICC/IF		1/200.
WB		1/5000. Detects a band of approximately 51 kDa (predicted molecular weight: 51 kDa).
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

## Target

**Function** Implicated in the hormonal control of several regulatory proteins including glycogen synthase, MYB and the transcription factor JUN.

**Sequence similarities** Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. GSK-3 subfamily. Contains 1 protein kinase domain.

## Images



**All lanes :** Anti-GSK3 alpha antibody [EP793Y] (ab40870) at 1/1000 dilution

**Lane 1 :** Wild-type HEK-293T (Human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate

**Lane 2 :** GSK3A knockout HEK-293T (Human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate

**Lane 3 :** HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate

**Lane 4 :** HepG2 (Human liver hepatocellular carcinoma cell line) whole cell lysate

Lysates/proteins at 20 µg per lane.

## Secondary

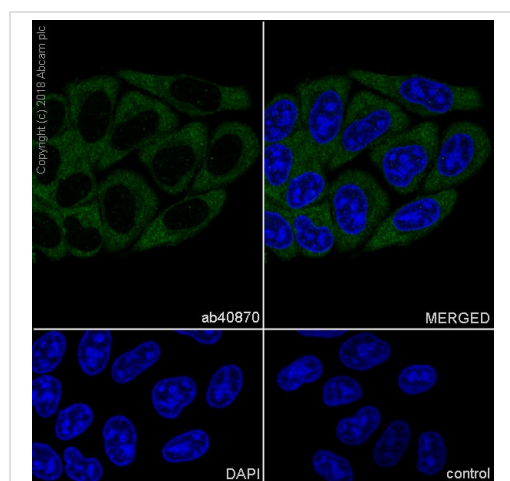
**All lanes :** Goat anti-Rabbit IgG H&L (IRDye® 800CW)  
preadsorbed (**ab216773**) at 1/10000 dilution

**Predicted band size:** 51 kDa

**Observed band size:** 51 kDa

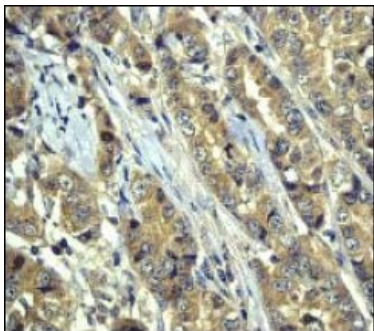
**Lanes 1-4:** Merged signal (red and green). Green - ab40870 observed at 51 kDa. Red - loading control **ab8245** observed at 36 kDa.

ab40870 Anti-GSK3 alpha antibody [EP793Y] was shown to specifically react with GSK3 alpha in wild-type HEK-293T cells. Loss of signal was observed when knockout cell line **ab266742** (knockout cell lysate **ab257979**) was used. Wild-type and GSK3 alpha knockout samples were subjected to SDS-PAGE. ab40870 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Immunocytochemistry/ Immunofluorescence - Anti-GSK3 alpha antibody [EP793Y] (ab40870)

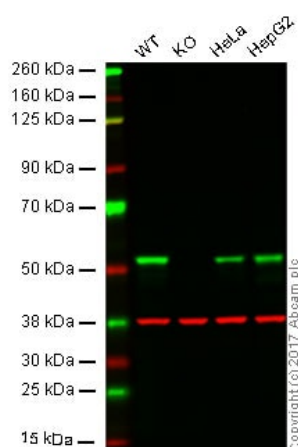
Immunocytochemistry/ Immunofluorescence analysis of HeLa (human cervix adenocarcinoma epithelial cell) cells labeling GSK3 alpha with purified ab40870 at 1/200 dilution (10 µg/mL). Cells were fixed in 100% Methanol. Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1/1000 (2 µg/mL) dilution. DAPI (blue) was used as nuclear counterstain.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GSK3 alpha antibody [EP793Y] (ab40870)

**ab40870** at 1/50 dilution, staining GSK3 alpha in Human breast carcinoma tissue by Immunohistochemistry, Paraffin embedded section.

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



Western blot - Anti-GSK3 alpha antibody [EP793Y] (ab40870)

**Lane 1:** Wild-type HAP1 whole cell lysate (20 µg)

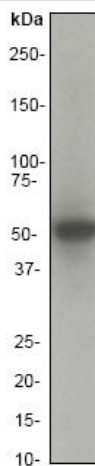
**Lane 2:** GSK3 alpha knockout HAP1 whole cell lysate (20 µg)

**Lane 3:** HeLa whole cell lysate (20 µg)

**Lane 4:** HepG2 whole cell lysate (20 µg)

**Lanes 1 - 4:** Merged signal (red and green). Green - ab40870 observed at 51 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

ab40870 was shown to specifically react with GSK3 alpha in wild-type HAP1 cells. No band was observed when GSK3 alpha knockout samples were examined. Wild-type and GSK3 alpha knockout samples were subjected to SDS-PAGE. ab40870 and **ab8245** (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at a 1/5000 dilution and 1/10,000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed **ab216776** secondary antibodies at 1/10,000 dilution for 1 hour at room temperature before imaging.



Anti-GSK3 alpha antibody [EP793Y] (ab40870) at 1/5000 dilution + 10ug HeLa cell lysate.

**Predicted band size:** 51 kDa

**Observed band size:** 51 kDa

Western blot - Anti-GSK3 alpha antibody [EP793Y] (ab40870)

#### 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-GSK3 alpha antibody [EP793Y] (ab40870)

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

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