

## Product datasheet

# Anti-GRB2 antibody [Y301] ab32111

**KO VALIDATED** Recombinant RabMAB

★★★★☆ [1 Abreviews](#) [4 References](#) [6 Images](#)

### Overview

<b>Product name</b>	Anti-GRB2 antibody [Y301]
<b>Description</b>	Rabbit monoclonal [Y301] to GRB2
<b>Host species</b>	Rabbit
<b>Specificity</b>	ab32111 recognises GRB2. This antibody can also detect the splice isoform GRB3-3 of GRB2.
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P, ICC/IF, Flow Cyt (Intra) <b>Unsuitable for:</b> IP
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide within Human GRB2 aa 1-100 (N terminal). The exact sequence is proprietary.
<b>Positive control</b>	Human breast carcinoma, PC12 cells WB: HCT116, HeLa, PC-12, NIH/3T3, HEK-293, RAW 264.7 and C6 cell lysates
<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. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 49% PBS, 50% Glycerol (glycerin, glycerine), 0.05% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	Y301

Isotype

IgG

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab32111 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
WB	★★★★★ (1)	1/1000 - 1/5000. Predicted molecular weight: 25 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.
ICC/IF		1/100 - 1/250.
Flow Cyt (Intra)		1/40. <b>ab172730</b> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

### Application notes

Is unsuitable for IP.

## Target

### Function

Adapter protein that provides a critical link between cell surface growth factor receptors and the Ras signaling pathway.

Isoform GRB3-3 does not bind to phosphorylated epidermal growth factor receptor (EGFR) but inhibits EGF-induced transactivation of a RAS-responsive element. Isoform GRB3-3 acts as a dominant negative protein over GRB2 and by suppressing proliferative signals, may trigger active programmed cell death.

### Sequence similarities

Belongs to the GRB2/sem-5/DRK family.

Contains 1 SH2 domain.

Contains 2 SH3 domains.

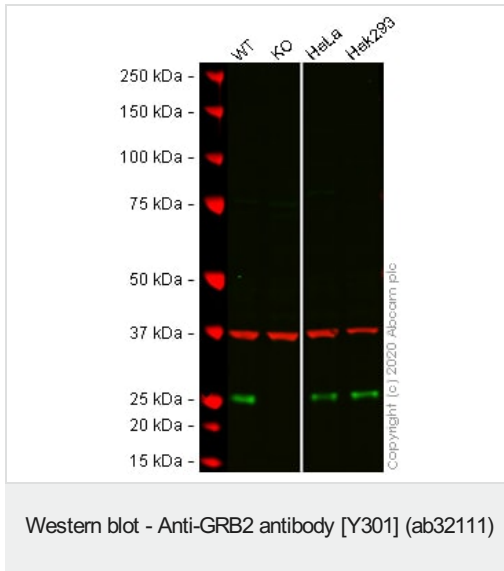
### Domain

The SH3 domains mediate interaction with RALGPS1 and SHB.

### Cellular localization

Golgi apparatus.

## Images



**All lanes :** Anti-GRB2 antibody [Y301] (ab32111) at 1/2000 dilution

**Lane 1 :** Wild-type HCT116 cell lysate

**Lane 2 :** GRB2 knockout HCT116 cell lysate

**Lane 3 :** HeLa cell lysate

**Lane 4 :** HEK293 cell lysate

Lysates/proteins at 20 µg per lane.

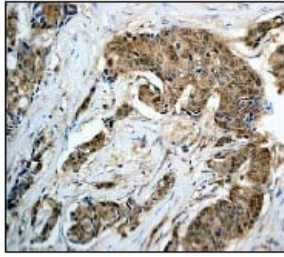
Performed under reducing conditions.

**Predicted band size:** 25 kDa

**Observed band size:** 25 kDa

**Lanes 1 - 4:** Merged signal (red and green). Green - ab32111 observed at 25 kDa. Red - loading control **ab8245** (Mouse anti-GAPDH antibody [6C5]) observed at 37kDa.

ab32111 was shown to react with GRB2 in HCT 116 wild-type cells in western blot with loss of signal observed in GRB2 knockout cell line **ab273715** (GRB2 knockout cell lysate **ab275248**). HCT 116 wild-type and GRB2 knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3% milk in TBS-T (0.1% Tween<sup>®</sup>) before incubation with ab32111 and **ab8245** (Mouse anti-GAPDH antibody [6C5]) overnight at 4°C at a 1 in 2000 dilution and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Rabbit IgG H&L (IRDye<sup>®</sup> 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye<sup>®</sup> 680RD) preabsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



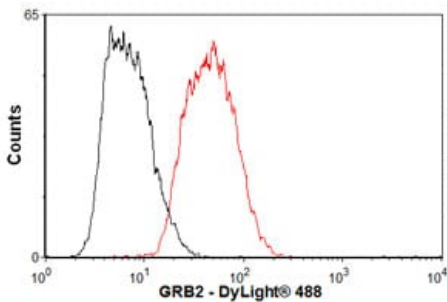
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GRB2 antibody [Y301] (ab32111)

Immunohistochemical analysis of GRB2 expression in paraffin embedded human breast carcinoma tissue section, using 1/100 ab32111. Heat mediated antigen retrieval was performed with citrate buffer pH 6 before commencing with IHC staining protocol.



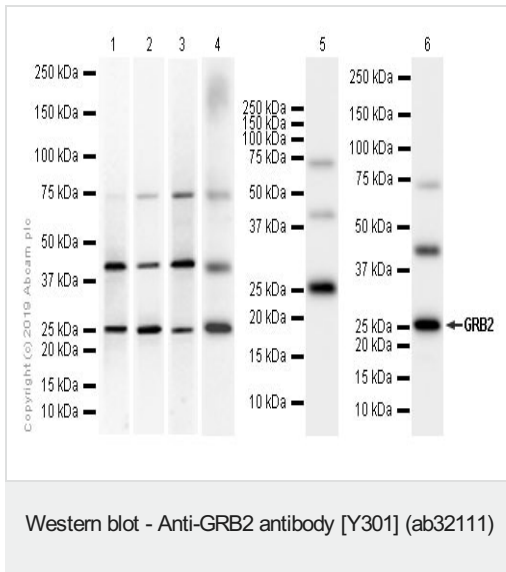
Immunocytochemistry/ Immunofluorescence - Anti-GRB2 antibody [Y301] (ab32111)

Immunofluorescent analysis of GRB2 expression in PC12 cells, using 1/100 ab32111.



Flow Cytometry (Intracellular) - Anti-GRB2 antibody [Y301] (ab32111)

Overlay histogram showing SH-SY5Y cells stained with ab32111 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab32111, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) ([ab96899](#)) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of >5,000 events was performed.



**All lanes** : Anti-GRB2 antibody [Y301] (ab32111) at 1/5000 dilution (purified)

**Lane 1** : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates

**Lane 2** : PC-12 (Rat adrenal gland pheochromocytoma) whole cell lysates

**Lane 3** : NIH/3T3 (Mouse embryonic fibroblast) whole cell lysates

**Lane 4** : HEK-293 (Human embryonic kidney epithelial cell) whole cell lysates

**Lane 5** : RAW 264.7 (Mouse Abelson murine leukemia virus-induced tumor macrophage) whole cell lysates

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

Lysates/proteins at 15 µg per lane.

### Secondary

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

**Predicted band size:** 25 kDa

**Observed band size:** 25 kDa

Blocking/Diluting Buffer and concentration: 5% NFDM/TBST

We are unsure how to define the extra bands.

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-GRB2 antibody [Y301] (ab32111)

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

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