

Anti-ErbB2 / HER2 antibody [CPT-R32.2-27-12] ab241325

敲除验证
重组
RabMAb

5 图像

概述

产品名称	Anti-ErbB2 / HER2抗体[CPT-R32.2-27-12]
描述	兔单克隆抗体[CPT-R32.2-27-12] to ErbB2 / HER2
宿主	Rabbit
经测试应用	适用于: WB, ICC/IF, ELISA 不适用于: Flow Cyt
种属反应性	与反应: Human
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
阳性对照	WB: SK-BR-3 whole cell lysate. ICC/IF: SK-BR-3 cells.
常规说明	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

性能

形式	Liquid
存放说明	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.
存储溶液	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
纯度	Protein A purified
克隆	单克隆
克隆编号	CPT-R32.2-27-12
同种型	IgG

应用

The Abpromise guarantee

Abpromise™ 承诺保证使用ab241325于以下的经测试应用

“应用说明”部分下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB		1/1000. Detects a band of approximately 150-250 kDa (predicted molecular weight: 137 kDa).
ICC/IF		1/50.
ELISA		Use a concentration of 0.01 - 1 µg/ml.

应用说明

Is unsuitable for Flow Cyt.

靶标

功能

Protein tyrosine kinase that is part of several cell surface receptor complexes, but that apparently needs a coreceptor for ligand binding. Essential component of a neuregulin-receptor complex, although neuregulins do not interact with it alone. GP30 is a potential ligand for this receptor. Regulates outgrowth and stabilization of peripheral microtubules (MTs). Upon ERBB2 activation, the MEMO1-RHOA-DIAPH1 signaling pathway elicits the phosphorylation and thus the inhibition of GSK3B at cell membrane. This prevents the phosphorylation of APC and CLASP2, allowing its association with the cell membrane. In turn, membrane-bound APC allows the localization of MACF1 to the cell membrane, which is required for microtubule capture and stabilization. In the nucleus is involved in transcriptional regulation. Associates with the 5'-TCAAATTC-3' sequence in the PTGS2/COX-2 promoter and activates its transcription. Implicated in transcriptional activation of CDKN1A; the function involves STAT3 and SRC. Involved in the transcription of rRNA genes by RNA Pol I and enhances protein synthesis and cell growth.

组织特异性

Expressed in a variety of tumor tissues including primary breast tumors and tumors from small bowel, esophagus, kidney and mouth.

疾病相关

Hereditary diffuse gastric cancer

Glioma

Ovarian cancer

Lung cancer

Gastric cancer

Chromosomal aberrations involving ERBB2 may be a cause gastric cancer. Deletions within 17q12 region producing fusion transcripts with CDK12, leading to CDK12-ERBB2 fusion leading to truncated CDK12 protein not in-frame with ERBB2.

序列相似性

Belongs to the protein kinase superfamily. Tyr protein kinase family. EGF receptor subfamily. Contains 1 protein kinase domain.

翻译后修饰

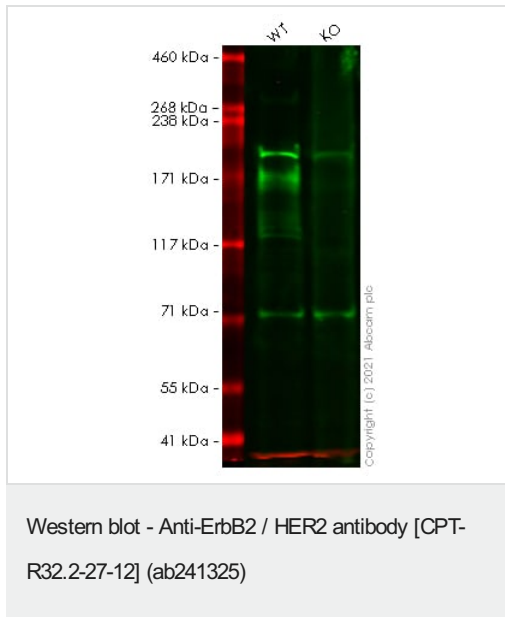
Autophosphorylated. Autophosphorylation occurs in trans, i.e. one subunit of the dimeric receptor phosphorylates tyrosine residues on the other subunit (Probable). Ligand-binding increases phosphorylation on tyrosine residues (PubMed:27134172). Signaling via SEMA4C promotes phosphorylation at Tyr-1248 (PubMed:17554007). Dephosphorylated by PTPN12 (PubMed:27134172).

细胞定位

Cytoplasm. Nucleus and Cell membrane. Cytoplasm, perinuclear region. Nucleus. Translocation

to the nucleus requires endocytosis, probably endosomal sorting and is mediated by importin beta-1/KPNB1.

图片



All lanes : Anti-ErbB2 / HER2 antibody [CPT-R32.2-27-12] (ab241325) at 1/1000 dilution

Lane 1 : Wild-type HeLa cell lysate

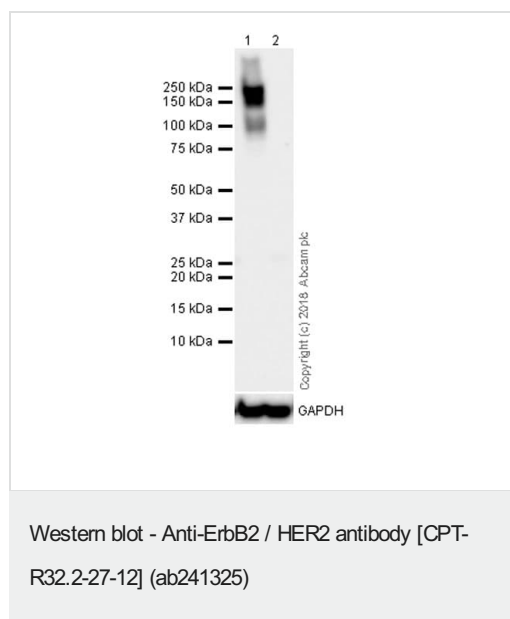
Lane 2 : ERBB2 knockout HeLa cell lysate

Lysates/proteins at 40 µg per lane.

Performed under reducing conditions.

Predicted band size: 137 kDa

False colour image of Western blot: Anti-ErbB2 / HER2 antibody [CPT-R32.2-27-12] staining at 1/1000 dilution, shown in green; Mouse anti-GAPDH antibody [6C5] ([ab8245](#)) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab241325 was shown to bind specifically to ErbB2 / HER2. A band was observed at 180 kDa in wild-type HeLa cell lysates with no signal observed at this size in ERBB2 knockout cell line [ab255387](#) (knockout cell lysate [ab263758](#)). To generate this image, wild-type and ERBB2 knockout HeLa cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ([ab216776](#)) at 1/20000 dilution.



All lanes : Anti-ErbB2 / HER2 antibody [CPT-R32.2-27-12] (ab241325) at 1/1000 dilution

Lane 1 : SK-BR-3 (human breast adenocarcinoma epithelial cell) whole cell lysate

Lane 2 : MCF7 (human breast adenocarcinoma 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: 137 kDa

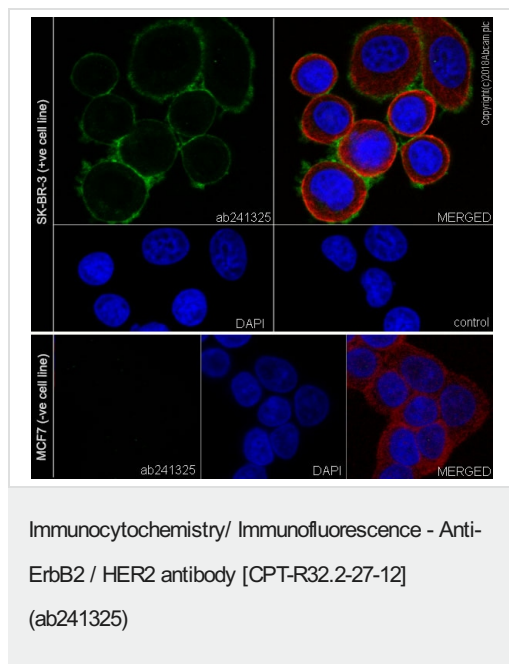
Observed band size: 150-250 kDa

Exposure time: 26 seconds

Negative control-MCF7. MCF7 belongs to Luminal A subtype which is HER2 negative (PMID: 20697531).

HER2 has 6 potential glycosylation sites, which might lead to the molecular mass greater than the predicted size. The expression profile in SK-BR-3 cells is consistent with literature (PMID: 24425042). The multiple bands likely represent degraded HER2 or different isoforms.

Blocking/Dilution buffer: 5% NFDm/TBST.

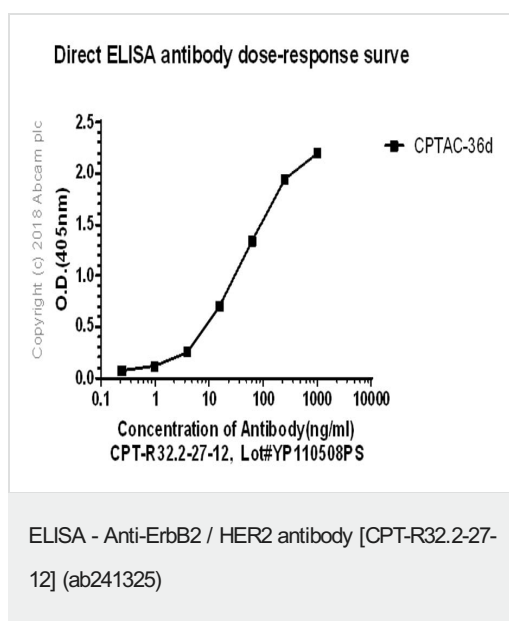


Immunofluorescent analysis of 100% methanol fixed SK-BR-3 (human breast adenocarcinoma epithelial cell) cells labeling ErbB 2 with ab241325 at 1/50 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution (green).

Confocal image showing membranous staining in SK-BR-3 cells.

Negative control: MCF7 (Human breast adenocarcinoma cell line) (PMID:20697531). Negative staining was obtained from 4% PFA fixation.

The nuclear counter stain is DAPI (blue). Tubulin is detected with [ab195889](#) Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) at a 1/200 dilution (red).



ELISA - Anti-ErbB 2 antibody [CPT-R32.2-27-12] (ab241325) used at 1000 ng/mL.

50 ng CPTAC-36d (1000 ng/mL, 50 µL per well) was coated onto 96-wells. Serial dilutions (0, 0.2, 0.9, 3.9, 15, 62, 250, 1000 ng/mL) of ab241325 (50 µL) were incubated with CPTAC-36d in each well for 60 minutes by shaking. This was followed by adding goat anti-rabbit IgG, (H+L), phosphatase-conjugated secondary antibody (50 µL, 1/2500) into each well and incubating for another 40 minutes. After washing, 50 µL of PNPP was added and incubated for 15 minutes without shaking for color development. OD was read at 405nm within 5 minutes.

Primary antibody concentration range: 0.01 - 1.0 µg/mL.

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-ErbB2 / HER2 antibody [CPT-R32.2-27-12]
(ab241325)

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

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.cn/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors