abcam

Product datasheet

Anti-ErbB2 / HER2 antibody [EP1045Y] ab134182

敲除验证 重组 RabMAb

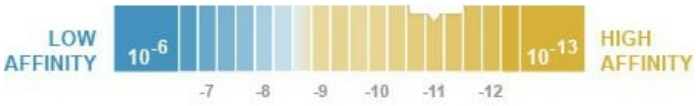
3 Abreviews 46 References 15 图像

概述

产品名称	Anti-ErbB2 / HER2抗体[EP1045Y]
描述	兔单克隆抗体[EP1045Y] to ErbB2 / HER2
宿主	Rabbit
特异性	ab134182 detects ErbB 2 phosphorylated at Tyr1248 as well as unphosphorylated ErbB 2. Mouse species is recommended based on WB results, we do not guarantee IHC-P for mouse.
经测试应用	**适用于:** WB, IP, ICC/IF, IHC-P **不适用于:** Flow Cyt
种属反应性	**与反应:** Mouse, Human
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
阳性对照	WB: HeLa, SKBR-3, Wild-type HCT 116 and Wild-type A549 cell lysates; IHC-P: Human breast carcinoma tissue; ICC/IF: SKBR cells; IP: HeLa.
常规说明	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**. Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

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.
解离常数(K_D)	K_D = 3.00 x 10^{-11} M



Learn more about K_D

存储溶液	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.5% BSA
纯度	Protein A purified
克隆	单克隆
克隆编号	EP1045Y
同种型	IgG

应用

The Abpromise guarantee Abpromise™承诺保证使用ab134182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. Predicted molecular weight: 137 kDa.
IP		1/30. **For unpurifed use at 1/50.**
ICC/IF	★★★☆☆ (2)	1/250 - 1/500.
IHC-P	★★★★★ (1)	1/1600. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. **For unpurified use at 1/100 -1/250.**

应用说明 Is unsuitable for Flow Cyt.

靶标

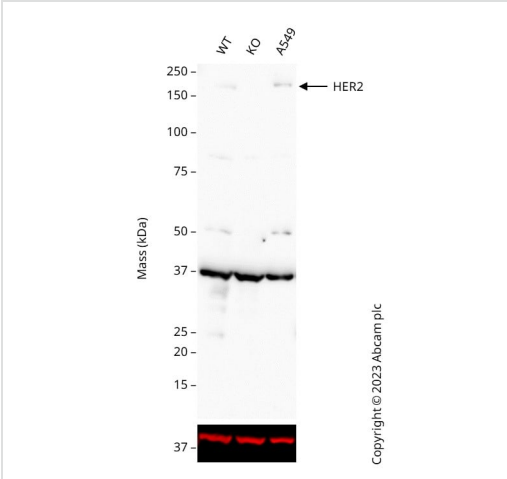
功能 Protein tyrosine kinase that is part of several cell surface receptor complexes, but that apparently needs a coreceptor for ligand binding. Essential component of a neuregulin-receptor complex, although neuregulins do not interact with it alone. GP30 is a potential ligand for this receptor. Regulates 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



Western blot - Anti-ErbB2 / HER2 antibody [EP1045Y] (ab134182)

All lanes : Anti-ErbB2 / HER2 antibody [EP1045Y] (ab134182) at 1/500 dilution

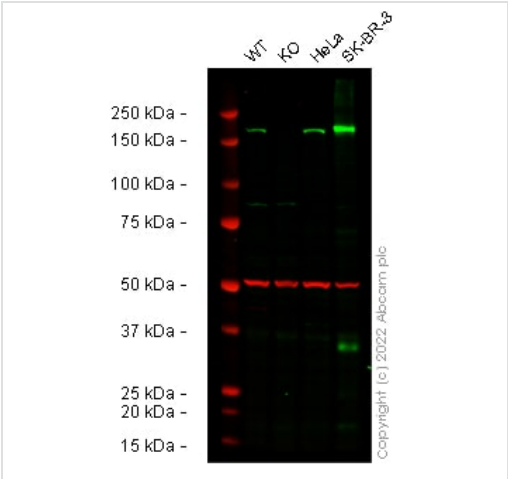
Lane 1 : Wild-type MCF7 cell lysate at 32 µg
Lane 2 : ERBB2 knockout MCF7 cell lysate at 32 µg
Lane 3 : A549 cell lysate at 16 µg

Performed under reducing conditions.

Predicted band size: 137 kDa
Observed band size: 180 kDa

Western blot: Anti-ErbB2 / HER2 antibody [EP1045Y] staining at 1/500 dilution, shown in black; Mouse anti-Alpha Tubulin [DM1A] (**ab7291**) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab134182 was shown to bind specifically to ErbB2 / HER2. A band was observed at 180 kDa in wild-type MCF7 cell lysates with no signal observed at this size in ERBB2 knockout cell line **ab286260** (knockout cell lysate AB300208). To generate this image, wild-type and ERBB2 knockout MCF7 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 and washed again four times. Secondary antibodies used were HRP conjugated Goat anti-Rabbit (H+L) and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution. This blot was developed with an ultra high-sensitivity ECL substrate kit and imaged with 20 minutes exposure time.



Western blot - Anti-ErbB2 / HER2 antibody [EP1045Y] (ab134182)

All lanes : Anti-ErbB2 / HER2 antibody [EP1045Y] (ab134182) at 1/1000 dilution

Lane 1 : Wild-type A549 cell lysate
Lane 2 : ERBB2 knockout A549 cell lysate
Lane 3 : HeLa cell lysate
Lane 4 : SK-BR-3 cell lysate

Lysates/proteins at 20 µg per lane.

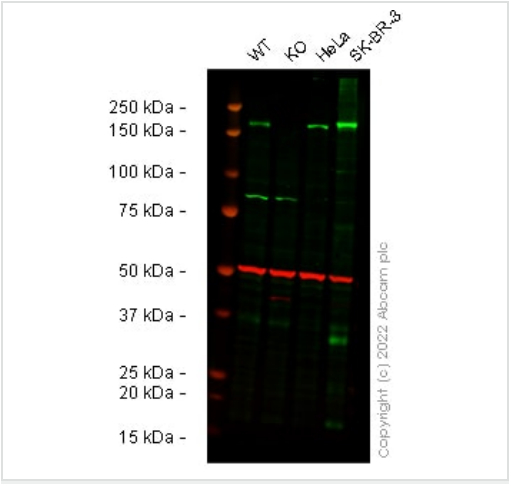
Secondary
All lanes : Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution

Performed under reducing conditions.

Predicted band size: 137 kDa
Observed band size: 180 kDa

False colour image of Western blot: Anti-ErbB2 / HER2 antibody [EP1045Y] staining at 1/1000 dilution, shown in green; Mouse anti-Alpha Tubulin [DM1A] (**ab7291**) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab134182 was shown to bind specifically to ErbB2 / HER2. A band was observed at 180 kDa in wild-type A549 cell lysates with no signal observed at this size in ERBB2 knockout cell line. To generate this image, wild-type and ERBB2 knockout A549 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 800CW and Goat anti-Mouse IgG

H&L 680RD at 1/20000 dilution.



Western blot - Anti-ErbB2 / HER2 antibody [EP1045Y] (ab134182)

All lanes : Anti-ErbB2 / HER2 antibody [EP1045Y] (ab134182) at 1/1000 dilution

Lane 1 : Wild-type HCT 116 cell lysate
Lane 2 : ERBB2 knockout HCT 116 cell lysate
Lane 3 : HeLa cell lysate
Lane 4 : SK-BR-3 cell lysate

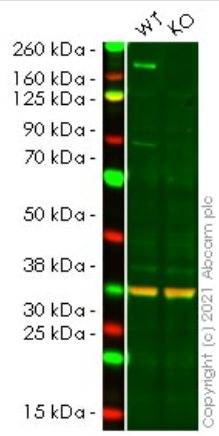
Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution

Performed under reducing conditions.

Predicted band size: 137 kDa
Observed band size: 180 kDa

False colour image of Western blot: Anti-ErbB2 / HER2 antibody [EP1045Y] staining at 1/1000 dilution, shown in green; Mouse anti-Alpha Tubulin [DM1A] (**ab7291**) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab134182 was shown to bind specifically to ErbB2 / HER2. A band was observed at 180 kDa in wild-type HCT 116 cell lysates with no signal observed at this size in ERBB2 knockout cell line. To generate this image, wild-type and ERBB2 knockout HCT 116 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in fluorescent western blot (TBS-based) blocking solution 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 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution.



Western blot - Anti-ErbB2 / HER2 antibody [EP1045Y] (ab134182)

All lanes : Anti-ErbB2 / HER2 antibody [EP1045Y] (ab134182) at 1/1000 dilution

Lane 1 : Wild-type HeLa cell lysate
Lane 2 : ERBB2 knockout HeLa cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 137 kDa

False colour image of Western blot: Anti-ErbB2 / HER2 antibody [EP1045Y] 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, ab134182 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.

Western blot - Anti-ErbB2 / HER2 antibody [EP1045Y] (ab134182)

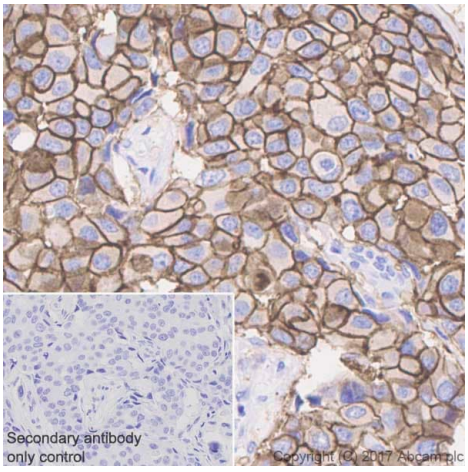
Anti-ErbB2 / HER2 antibody [EP1045Y] (ab134182) at 1/1000 dilution + 4T1(Mouse mammary gland carcinoma epithelial cell) whole cell lysate at 20 µg

Secondary

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

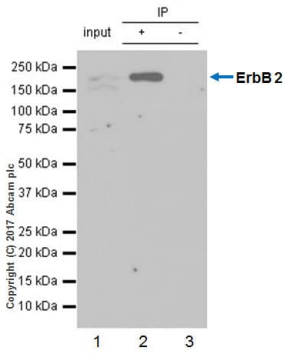
Predicted band size: 137 kDa

Observed band size: 180 kDa



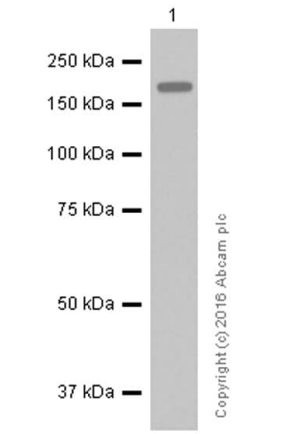
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ErbB2 / HER2 antibody [EP1045Y] (ab134182)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human breast carcinoma tissue sections labeling EErbB2 / HER2 with Purified ab134182 at 1:1600 dilution (0.68 µg/ml). Heat mediated antigen retrieval was performed using **ab93684** (Tris/EDTA buffer, pH 9.0). Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control.



Immunoprecipitation - Anti-ErbB2 / HER2 antibody [EP1045Y] (ab134182)

ab134182 (purified) at 1:30 dilution (2µg) immunoprecipitating ErbB2 / HER2 in HeLa whole cell lysate.
Lane 1 (input): HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate 10µg
Lane 2 (+): ab134182 & HeLa whole cell lysate
Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of ab134182 in HeLa whole cell lysate
For western blotting, VeriBlot for IP Detection Reagent (HRP) (**ab131366**) was used for detection at 1:1000 dilution.
Blocking and diluting buffer: 5% NFDM/TBST.



Western blot - Anti-ErbB2 / HER2 antibody [EP1045Y] (ab134182)

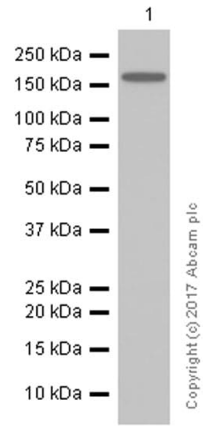
Anti-ErbB2 / HER2 antibody [EP1045Y] (ab134182) at 1/10000 dilution (purified) + SK-BR-3 (Human breast adenocarcinoma epithelial cell) whole cell lysates at 15 µg

Secondary

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

Predicted band size: 137 kDa

Blocking and diluting buffer : 5% NFDM/TBST



Western blot - Anti-ErbB2 / HER2 antibody [EP1045Y] (ab134182)

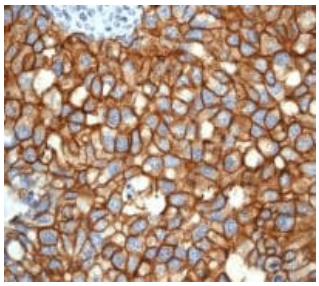
Anti-ErbB2 / HER2 antibody [EP1045Y] (ab134182) at 1/1000 dilution (purified) + HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates at 15 µg

Secondary

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

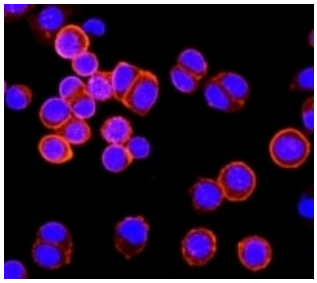
Predicted band size: 137 kDa

Blocking and diluting buffer : 5% NFDM/TBST



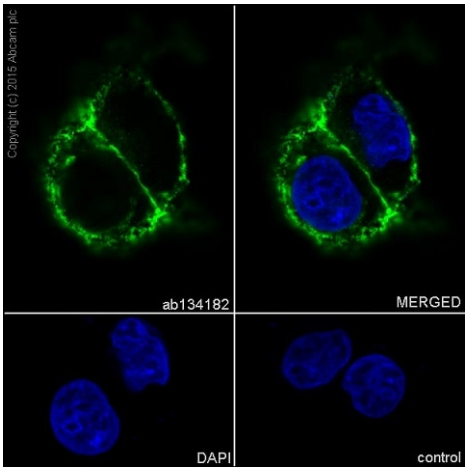
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ErbB2 / HER2 antibody [EP1045Y] (ab134182)

Immunohistochemical analysis of paraffin-embedded Human breast carcinoma tissue labelling ErbB2 / HER2 with ab134182 at 1/100 dilution. Heat mediated antigen retrieval was performed using Tris/EDTA buffer, pH 9.0).



Immunocytochemistry/ Immunofluorescence - Anti-ErbB2 / HER2 antibody [EP1045Y] (ab134182)

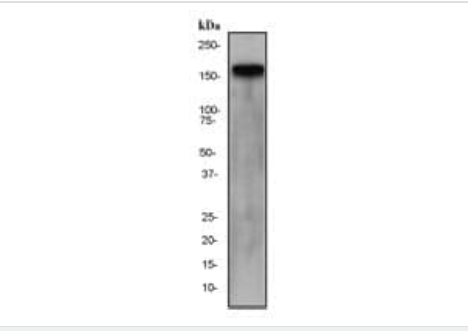
Immunofluorescent analysis of SKBR cells labelling ErbB2 / HER2 with ab134182 at 1/250 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-ErbB2 / HER2 antibody [EP1045Y] (ab134182)

Immunocytochemistry/Immunofluorescence analysis of SK-BR-3 (human mammary gland adenocarcinoma) labelling ErbB2 / HER2 with purified ab134182 at 1/125. Cells were fixed with 4% PFA and permeabilized with 0.1% Triton X-100. An Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody (Ab150077). Nuclei counterstained with DAPI (blue).

Control: PBS only



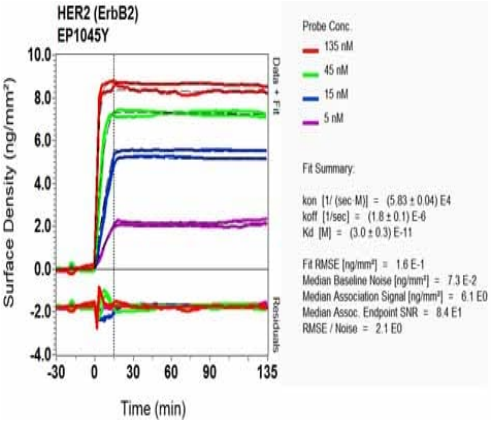
Western blot - Anti-ErbB2 / HER2 antibody [EP1045Y] (ab134182)

Anti-ErbB2 / HER2 antibody [EP1045Y] (ab134182) at 1/10000 dilution + SKBR-3 cell lysate at 10 µg

Secondary

HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 137 kDa

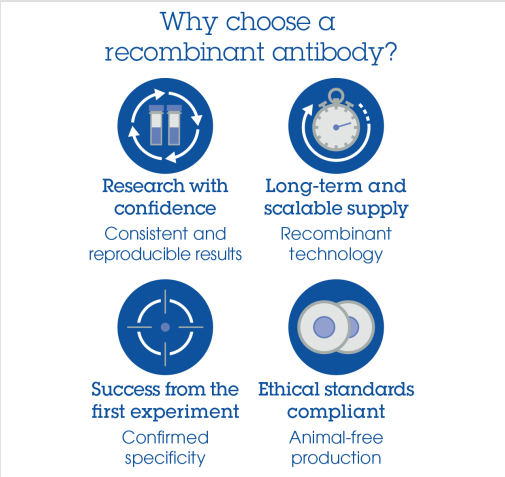


OI-RD Scanning - Anti-ErbB2 / HER2 antibody [EP1045Y] (ab134182)

Equilibrium disassociation constant (K_D)

Learn more about K_D

Click here to learn more about K_D



Anti-ErbB2 / HER2 antibody [EP1045Y] (ab134182)

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