

## Product datasheet

# Anti-ErbB 2 antibody ab47613

[2 Images](#)

### Overview

<b>Product name</b>	Anti-ErbB 2 antibody
<b>Description</b>	Rabbit polyclonal to ErbB 2
<b>Host species</b>	Rabbit
<b>Specificity</b>	This antibody is specific for ErbB 2.
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P, ELISA
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	A synthesized non-phosphopeptide derived from human ErbB 2 around the phosphorylation site of tyrosine 1221/1222.
<b>Positive control</b>	SK-OV3 cells and human breast carcinoma tissue

### 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>	Preservative: 0.02% Sodium Azide Constituents: 50% Glycerol, PBS, 150mM Sodium chloride, pH 7.4
<b>Purity</b>	Immunogen affinity purified
<b>Purification notes</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

### Applications

Our [Abpromise guarantee](#) covers the use of **ab47613** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

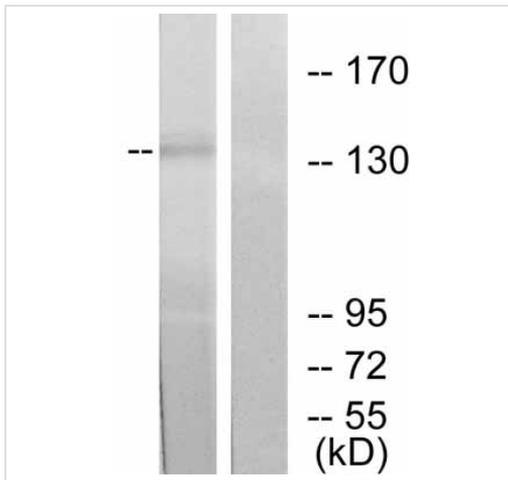
Application	Abreviews	Notes
WB		1/500 - 1/1000. Detects a band of approximately 175 kDa (predicted molecular weight: 138 kDa).

Application	Abreviews	Notes
IHC-P		Use at an assay dependent concentration.
ELISA		1/20000.

## Target

<b>Function</b>	<p>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.</p>
<b>Tissue specificity</b>	<p>Expressed in a variety of tumor tissues including primary breast tumors and tumors from small bowel, esophagus, kidney and mouth.</p>
<b>Involvement in disease</b>	<p>Hereditary diffuse gastric cancer  Glioma  Ovarian cancer  Lung cancer  Gastric cancer</p> <p>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.</p>
<b>Sequence similarities</b>	<p>Belongs to the protein kinase superfamily. Tyr protein kinase family. EGF receptor subfamily. Contains 1 protein kinase domain.</p>
<b>Post-translational modifications</b>	<p>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).</p>
<b>Cellular localization</b>	<p>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.</p>

## Images



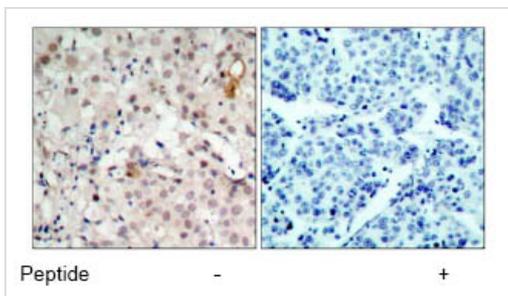
Western blot - Anti-ErbB 2 antibody (ab47613)

**All lanes :** Anti-ErbB 2 antibody (ab47613) at 1/500 dilution

**Lane 1 :** Extract of SK-OV3 cells

**Lane 2 :** Extract of SK-OV3 cells with blocking peptide

**Predicted band size:** 138 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ErbB 2 antibody (ab47613)

Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using ab47613 at a 1/50 dilution.

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