

# Product datasheet

info@arigobio.com

# ARG54968 anti-ERBB2 / HER2 antibody

Package: 100 μl Store at: -20°C

#### **Summary**

Product Description Rabbit Polyclonal antibody recognizes ERBB2 / HER2

Tested Reactivity Hu

Predict Reactivity Ms, Rat

Tested Application FACS, IHC-P, WB

Host Rabbit

**Clonality** Polyclonal

Isotype IgG

Target Name ERBB2 / HER2

Species Human

Immunogen KLH-conjugated synthetic peptide corresponding to aa. 21-52 (N-terminus) of Human ERBB2.

Conjugation Un-conjugated

Alternate Names p185erbB2; Proto-oncogene c-ErbB-2; Metastatic lymph node gene 19 protein; Proto-oncogene Neu;

NGL; EC 2.7.10.1; CD340; CD antigen CD340; TKR1; HER-2; Tyrosine kinase-type cell surface receptor

HER2; HER2; NEU; HER-2/neu; MLN 19; Receptor tyrosine-protein kinase erbB-2

## **Application Instructions**

Application table	Application	Dilution
	FACS	1:10 - 1:50
	IHC-P	Assay-dependent
	WB	1:1000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	T47D	

#### **Properties**

Form Liquid

Purification Purification with Protein G.

Buffer PBS and 0.09% (W/V) Sodium azide

Preservative 0.09% (W/V) Sodium azide

Storage instruction For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot

and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed

before use.

#### Bioinformation

Database links GeneID: 2064 Human

Swiss-port # P04626 Human

Gene Symbol ERBB2

Gene Full Name erb-b2 receptor tyrosine kinase 2

Background This gene encodes a member of the epidermal growth factor (EGF) receptor family of receptor tyrosine

kinases. This protein has no ligand binding domain of its own and therefore cannot bind growth factors. However, it does bind tightly to other ligand-bound EGF receptor family members to form a heterodimer, stabilizing ligand binding and enhancing kinase-mediated activation of downstream

signalling pathways, such as those involving mitogen-activated protein kinase and

phosphatidylinositol-3 kinase. Allelic variations at amino acid positions 654 and 655 of isoform a (positions 624 and 625 of isoform b) have been reported, with the most common allele, Ile654/Ile655, shown here. Amplification and/or overexpression of this gene has been reported in numerous cancers, including breast and ovarian tumors. Alternative splicing results in several additional transcript variants, some encoding different isoforms and others that have not been fully characterized. [provided by

RefSeq, Jul 2008]

Function 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. [UniProt]

Research Area Cancer antibody; Controls and Markers antibody; Signaling Transduction antibody; Circulating Tumor

Cells BioMarker antibody

Calculated Mw 138 kDa

PTM Autophosphorylated. Autophosphorylation occurs in trans, i.e. one subunit of the dimeric receptor

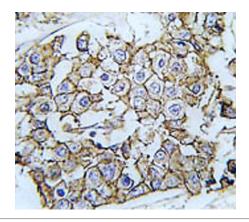
phosphorylates tyrosine residues on the other subunit (Probable). Ligand-binding increases phosphorylation on tyrosine residues (PubMed:27134172). Signaling via SEMA4C promotes

phosphorylation at Tyr-1248 (PubMed:17554007). Dephosphorylated by PTPN12 (PubMed:27134172).

Cellular Localization Isoform 1: Cell membrane; Single-pass type I membrane protein. Cytoplasm, perinuclear region.

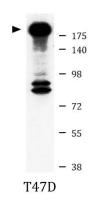
Nucleus Note=Translocation to the nucleus requires endocytosis, probably endosomal sorting and is

mediated by importin beta-1/KPNB1 Isoform 3: Cytoplasm. Nucleus.



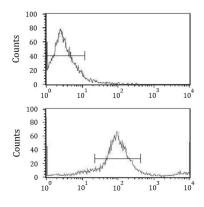
## ARG54968 anti-ERBB2 / HER2 antibody IHC-P image

Immunohistochemistry: Formalin-fixed and paraffin-embedded Human breast carcinoma tissue stained with ARG54968 anti-ERBB2 / HER2 antibody.



#### ARG54968 anti-ERBB2 / HER2 antibody WB image

Western blot: T47D cell lysate stained with ARG54968 anti-ERBB2 / HER2 antibody.



## ARG54968 anti-ERBB2 / HER2 antibody FACS image

Flow Cytometry: MCF-7 cells stained with ARG54968 anti-ERBB2 / HER2 antibody (bottom histogram) or without primary antibody control (top histogram), followed by incubation with FITC labelled secondary antibody.