ARG52859
anti-ERBB4 / HER4 antibody

Package: 500 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes ERBB4 / HER4
Tested Reactivity	Hu, Ms
Tested Application	IHC-P, IP, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	ERBB4 / HER4
Species	Human
Immunogen	Synthetic peptide from C-terminus of human c-erbB-4 protein.
Conjugation	Un-conjugated
Alternate Names	E4ICD; s80HER4; Proto-oncogene-like protein c-ErbB-4; p180erbB4; Tyrosine kinase-type cell surface receptor HER4; Receptor tyrosine-protein kinase erbB-4; 4ICD; EC 2.7.10.1; ALS19; HER4

Application Instructions

Application table

Application	Dilution
IHC-P	1:50
IP	Assay-Dependent
WB	1:25

Application Note: IHC-P:
Incubation Time: 30 min at RT.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Positive Control: Breast Carcinoma, A431

Properties

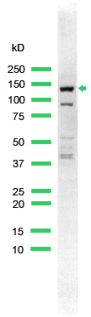
Form	Liquid
Purification	Immunogen affinity purified
Buffer	PBS (pH 7.6), 1% BSA and < 0.1% Sodium azide
Preservative	< 0.1% Sodium azide
Stabilizer	1% BSA
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or 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.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

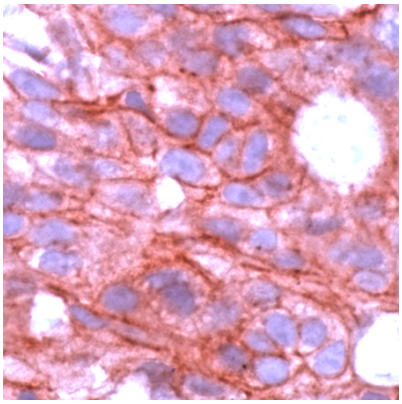
Database links	GeneID: 13869 Mouse GeneID: 2066 Human Swiss-port # Q15303 Human Swiss-port # Q61527 Mouse
Background	c-erbB-4 is the fourth member of class 1 receptor kinase family. HER-4 is most predominantly expressed in several breast carcinoma cell lines, and in normal skeletal muscle, heart, pituitary, brain, and cerebellum. Breast tumor cell lines T47-D, MDA-MB-453, BT-474 and H3396 are found to have the highest levels of mRNA, and intermediate levels are seen in MCF-7, MDA-MB-330 and MDA-MB-361. Expression of erbB-4 is low or absent in some breast tumor cell lines such as MDA-MB-231, MDA-MB-157, MDA-MB-468, and SKBR-3.
Research Area	Cancer antibody; Controls and Markers antibody; Signaling Transduction antibody
Calculated Mw	147 kDa
PTM	Isoform JM-A CYT-1 and isoform JM-A CYT-2 are processed by ADAM17. Proteolytic processing in response to ligand or 12-O-tetradecanoylphorbol-13-acetate stimulation results in the production of 120 kDa soluble receptor forms and intermediate membrane-anchored 80 kDa fragments (m80HER4), which are further processed by a presenilin-dependent gamma-secretase to release a cytoplasmic intracellular domain (E4ICD; E4ICD1/s80Cyt1 or E4ICD2/s80Cyt2, depending on the isoform). Membrane-anchored 80 kDa fragments of the processed isoform JM-A CYT-1 are more readily degraded by the proteasome than fragments of isoform JM-A CYT-2, suggesting a prevalence of E4ICD2 over E4ICD1. Isoform JM-B CYT-1 and isoform JM-B CYT-2 lack the ADAM17 cleavage site and are not processed by ADAM17, precluding further processing by gamma-secretase. Autophosphorylated on tyrosine residues in response to ligand binding. Autophosphorylation occurs in trans, i.e. one subunit of the dimeric receptor phosphorylates tyrosine residues on the other subunit. Ligands trigger phosphorylation at specific tyrosine residues, thereby creating binding sites for scaffold proteins and effectors. Constitutively phosphorylated at a basal level when overexpressed in heterologous systems; ligand binding leads to increased phosphorylation. Phosphorylation at Tyr-1035 is important for interaction with STAT1. Phosphorylation at Tyr-1056 is important for interaction with PIK3R1. Phosphorylation at Tyr-1242 is important for interaction with SHC1. Phosphorylation at Tyr-1188 may also contribute to the interaction with SHC1. Isoform JM-A CYT-2 is constitutively phosphorylated on tyrosine residues in a ligand-independent manner. E4ICD2 but not E4ICD1 is phosphorylated on tyrosine residues. Ubiquitinated. During mitosis, the ERBB4 intracellular domain is ubiquitinated by the APC/C complex and targeted to proteasomal degradation. Isoform JM-A CYT-1 and isoform JM-B CYT-1 are ubiquitinated by WWP1. The ERBB4 intracellular domain (E4ICD1) is ubiquitinated, and this involves NEDD4.
Cellular Localization	Cytoplasm, Membrane

Images



ARG52859 anti-ERBB4 / HER4 antibody WB image

Western blot: A431 cell lysate stained with ARG52859 anti-ERBB4 / HER4 antibody.



ARG52859 anti-ERBB4 / HER4 antibody IHC-P image

Immunohistochemistry: Human Breast Carcinoma stained with ARG52859 anti-ERBB4 / HER4 antibody.