

Datasheet for ABIN6256632
anti-ERBB4 antibody (pTyr1284)

5 Images

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Overview

Quantity:	100 µL
Target:	ERBB4
Binding Specificity:	pTyr1284
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This ERBB4 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), ELISA, Immunofluorescence (IF), Immunocytochemistry (ICC)

Product Details

Immunogen:	A synthesized peptide derived from human HER4 around the phosphorylation site of Tyr1284.
Isotype:	IgG
Specificity:	Phospho-HER4 (Tyr1284) Antibody detects endogenous levels of HER4 only when phosphorylated at Tyrosine 1284.
Predicted Reactivity:	Horse, Sheep, Rabbit, Dog, Chicken, Xenopus
Purification:	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns.

Target Details

Target:	ERBB4
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Target Details

Alternative Name: ERBB4 ([ERBB4 Products](#))

Background: Description: Tyrosine-protein kinase that plays an essential role as cell surface receptor for neuregulins and EGF family members and regulates development of the heart, the central nervous system and the mammary gland, gene transcription, cell proliferation, differentiation, migration and apoptosis. Required for normal cardiac muscle differentiation during embryonic development, and for postnatal cardiomyocyte proliferation. Required for normal development of the embryonic central nervous system, especially for normal neural crest cell migration and normal axon guidance. Required for mammary gland differentiation, induction of milk proteins and lactation. Acts as cell-surface receptor for the neuregulins NRG1, NRG2, NRG3 and NRG4 and the EGF family members BTC, EREG and HBEGF. Ligand binding triggers receptor dimerization and autophosphorylation at specific tyrosine residues that then serve as binding sites for scaffold proteins and effectors. Ligand specificity and signaling is modulated by alternative splicing, proteolytic processing, and by the formation of heterodimers with other ERBB family members, thereby creating multiple combinations of intracellular phosphotyrosines that trigger ligand- and context-specific cellular responses. Mediates phosphorylation of SHC1 and activation of the MAP kinases MAPK1/ERK2 and MAPK3/ERK1. Isoform JM-A CYT-1 and isoform JM-B CYT-1 phosphorylate PIK3R1, leading to the activation of phosphatidylinositol 3-kinase and AKT1 and protect cells against apoptosis. Isoform JM-A CYT-1 and isoform JM-B CYT-1 mediate reorganization of the actin cytoskeleton and promote cell migration in response to NRG1. Isoform JM-A CYT-2 and isoform JM-B CYT-2 lack the phosphotyrosine that mediates interaction with PIK3R1, and hence do not phosphorylate PIK3R1, do not protect cells against apoptosis, and do not promote reorganization of the actin cytoskeleton and cell migration. Proteolytic processing of isoform JM-A CYT-1 and isoform JM-A CYT-2 gives rise to the corresponding soluble intracellular domains (4ICD) that translocate to the nucleus, promote nuclear import of STAT5A, activation of STAT5A, mammary epithelium differentiation, cell proliferation and activation of gene expression. The ERBB4 soluble intracellular domains (4ICD) colocalize with STAT5A at the CSN2 promoter to regulate transcription of milk proteins during lactation. The ERBB4 soluble intracellular domains can also translocate to mitochondria and promote apoptosis.

Gene: ERBB4

Molecular Weight: 180kDa

Gene ID: 2066

UniProt: [Q15303](#)

Pathways: [RTK Signaling](#), [Fc-epsilon Receptor Signaling Pathway](#), [EGFR Signaling Pathway](#), [Neurotrophin](#)

Target Details

Signaling Pathway

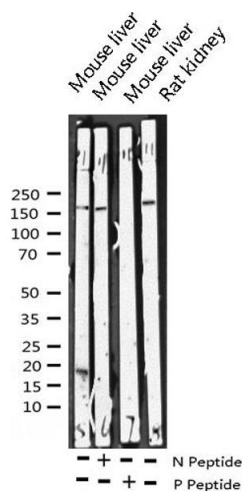
Application Details

Application Notes:	WB 1:500-1:2000, IHC 1:50-1:200, IF/ICC 1:100-1:500, ELISA(peptide) 1:20000-1:40000
Restrictions:	For Research Use only

Handling

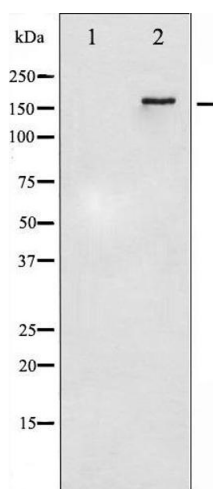
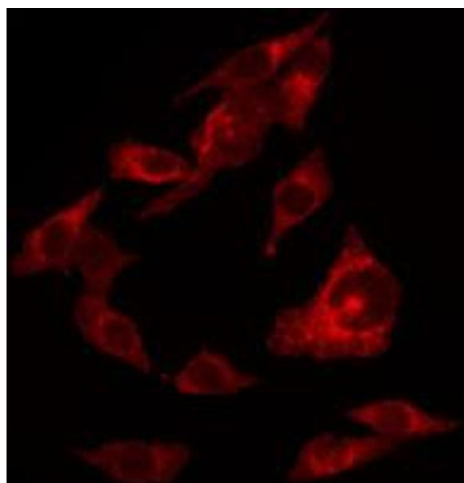
Format:	Liquid
Concentration:	1 mg/mL
Buffer:	Rabbit IgG in phosphate buffered saline , pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store at -20 °C. Stable for 12 months from date of receipt.
Expiry Date:	12 months

Images



Western Blotting

Image 1. Western blot analysis of Phospho-HER4 (Tyr1284) expression in various lysates



Immunofluorescence (fixed cells)

Image 2. ABIN6267654 staining HuvEc by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25°C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37°C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.

Western Blotting

Image 3. Western blot analysis of HER4 phosphorylation expression in EGF treated HuvEc whole cell lysates, The lane on the left is treated with the antigen-specific peptide.

Please check the [product details page](#) for more images. Overall 5 images are available for ABIN6256632.