

## Basic Information

<b>Product Name</b>	Anti-ERBB4 Antibody (Clone#HC-5)	
<b>Gene Name</b>	ERBB4	
<b>Source</b>	Rabbit	
<b>Clonality</b>	Monoclonal	
<b>Isotype</b>	IgG	
<b>Species Reactivity</b>	human, mouse, rat	
<b>Tested Application</b>	WB, ICC/IF, IP, FCM	
<b>Contents</b>	500 ug/ml; Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide, 0.4-0.5 mg/ml BSA and 50% glycerol.	
<b>Immunogen</b>	A synthesized peptide derived from human ErbB (HER4)	
<b>Concentration</b>	500 ug/ml	
<b>Purification</b>	Affinity-chromatography	
<b>Observed MW</b>	180 kDa	
<b>Dilution Ratios</b>	Western blot (WB):	1:500-2000
	Immunocytochemistry/Immunofluorescence (ICC/IF):	1:50-200
	ImmunoPrecipitation (IP):	1:20
	Flow Cytometry (FCM):	1:20

## Storage

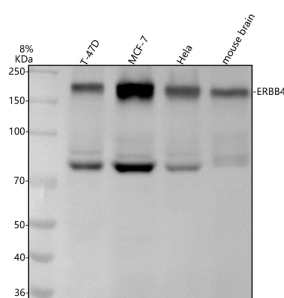
12 months from date of receipt, -20°C as supplied.

## Background Information

ERBB4(V-erb-b2 avian erythroblastic leukemia viral oncogene homolog 4) also known as ONCOGENE ERBB4 or HER4, is an enzyme that in humans is encoded by the ERBB4 gene. The HER4/ERBB4 gene is a member of the type I receptor tyrosine kinase subfamily that includes EGFR, ERBB2 and ERBB3. The ERBB4 gene is mapped on 2q34. ERBB4 is a single-pass type I transmembrane protein with multiple furin-like cysteine rich domains, a tyrosine kinase domain, a phosphatidylinositol-3 kinase binding site and a PDZ domainbinding motif. Huang et al.(2000) reported that ERBB4 is enriched in the postsynaptic density and associates with PSD95. ERBB4 is a transmembrane receptor tyrosine kinase that regulates cell proliferation and differentiation. After binding its ligand, heregulin, or activation of protein kinase C by TPA, the ERBB4 ectodomain is cleaved by a metalloprotease. Ni et al.(2001)concluded that gamma-secretase

cleavage of ERBB4 may represent another mechanism for receptor tyrosine kinase-mediated signaling.

## Selected Validation Data



Western blot analysis of anti-ERBB4 antibody (BM3935). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human T-47D whole cell lysates,

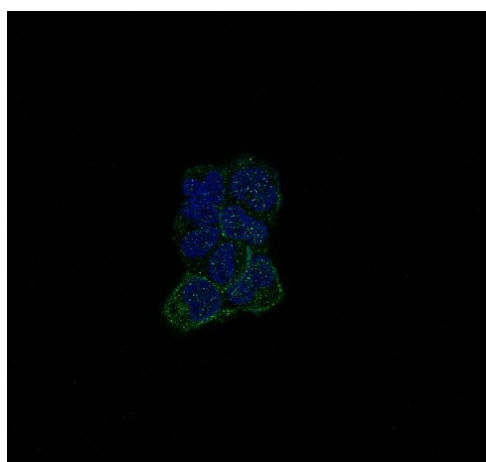
Lane 2: human MCF-7 whole cell lysates,

Lane 3: human Hela whole cell lysates,

Lane 4: mouse brain tissue lysates.

After electrophoresis, proteins were transferred to a membrane.

Then the membrane was incubated with rabbit anti-ERBB4 antigen affinity purified monoclonal antibody (BM3935) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for ERBB4 at approximately 180 kDa. The expected band size for ERBB4 is at 147 kDa.



Immunofluorescent analysis of A673 cells, using ErbB4 (HER4) Antibody .