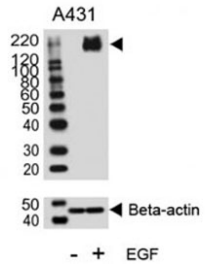
Phospho-ErbB2 (pY1140) Antibody / Signaling Marker (F48697)

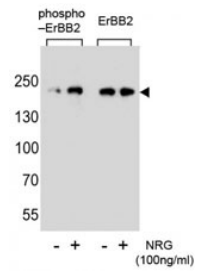
Catalog No.	Formulation	Size
F48697-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F48697-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

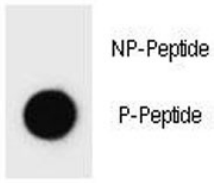
Availability	1-3 business days
Species Reactivity	Human, Mouse
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	P70424
Applications	Western blot: 1:1000 Dot blot: 1:500
Limitations	This Phospho-ErbB2 (pY1140) Antibody / Signaling Marker is available for research use only.



Phospho-ErbB2 (pY1140) Antibody EGF-Stimulated WB. Western blot analysis of human A431 cell lysates treated with or without EGF (100 ng/ml) using Phospho-ErbB2 (pY1140) Antibody detects a band at approximately 185 kDa in EGF-stimulated samples, consistent with the predicted molecular weight of phosphorylated ErbB2 / HER2, while untreated samples show reduced signal; beta-actin is shown as a loading control, supporting phosphorylation-dependent signaling at Tyr1140.



Phospho-ErbB2 (pY1140) Antibody NRG-Stimulated WB. Western blot analysis of human SK-BR-3 cell lysates treated with or without neuregulin (NRG, 100 ng/ml) using Phospho-ErbB2 (pY1140) Antibody detects a band at approximately 185 kDa in stimulated samples, consistent with the predicted molecular weight of phosphorylated ErbB2 / HER2, while untreated samples show reduced signal; parallel detection with a nonphospho ErbB2 antibody confirms total receptor expression across conditions, supporting phosphorylation-dependent signaling at Tyr1140.



Phospho-ErbB2 (pY1140) Antibody Dot Blot Specificity. Dot blot analysis of Phospho-ErbB2 (pY1140) Antibody demonstrates strong signal for the phosphorylated peptide and no detectable binding to the corresponding non-phosphorylated peptide, confirming phospho-specific recognition of ErbB2 / HER2 at Tyr1140. Approximately 50 ng of phospho-peptide or non-phospho peptide was applied per spot.

Description

ErbB2 receptor tyrosine kinase 2 (ERBB2), also known as HER2, is a transmembrane receptor that regulates cell proliferation, survival, and differentiation through activation of intracellular signaling pathways. Phospho-ErbB2 (pY1140) antibody, also referred to as phospho-HER2 antibody and phospho-ERBB2 antibody in the literature, detects phosphorylation at tyrosine 1140, a residue located within the intracellular domain of HER2 that contributes to downstream signaling activity.

Phosphorylation of HER2 occurs at multiple tyrosine residues following receptor activation, forming a coordinated signaling network that governs pathway engagement. Y1140 is positioned within this network and participates in transmission of signals to downstream pathways such as PI3K/AKT and MAPK. While not as extensively characterized as major activation sites, phosphorylation at Y1140 reflects receptor signaling activity and contributes to propagation of intracellular responses following receptor engagement.

HER2 signaling is a major driver of tumor biology, particularly in cancers characterized by ERBB2 amplification such as breast carcinoma. In these settings, phosphorylation at residues including Y1140 is associated with active signaling states that support tumor cell growth and survival. Detection of phosphorylation at this site provides insight into receptor activity within the broader signaling cascade rather than serving as a primary activation marker alone.

Y1140 functions within a phosphorylation cluster that includes nearby residues such as Y1112, Y1139, Y1221, Y1222, and Y1248. Together, these sites regulate the initiation, propagation, and integration of HER2-mediated signaling. Analysis of phosphorylation at Y1140 complements detection of these other residues and supports a more comprehensive understanding of HER2 signaling dynamics.

Phospho-specific detection of ERBB2 at Y1140 enables investigation of receptor signaling beyond primary activation events, supporting studies focused on pathway activity, signal propagation, and cellular response mechanisms in both normal and disease contexts.

For detection of activated HER2 phosphorylation, see our HER2 phospho antibody (pY1248).

Application Notes

Titration of the Phospho-ErbB2 (pY1140) Antibody / Signaling Marker may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

This phospho-ErbB2 antibody was produced from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding pY1140 of mouse HER2/ERBB2.

Storage

Aliquot the phospho-ErbB2 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Phospho-ErbB2 (pY1140) antibody, phospho-HER2 Tyr1140 antibody, ERBB2 pY1140 antibody, HER2 signaling antibody

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