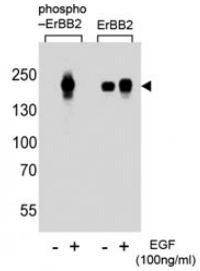
Phospho-ErbB2 (pY1112) Antibody / Adaptor Recruitment Marker (F48394)

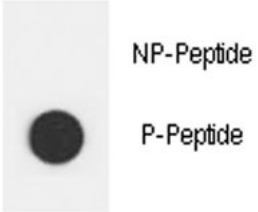
Catalog No.	Formulation	Size
F48394-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F48394-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	P04626
Applications	Western Blot : 1:2000 Dot Blot : 1:500
Limitations	This Phospho-ErbB2 (pY1112) Antibody / Adaptor Recruitment Marker is available for research use only.



Phospho-ErbB2 (pY1112) Antibody EGF-Stimulated WB. Western blot analysis of human A431 cell lysates treated with or without EGF (100 ng/ml) using Phospho-ErbB2 (pY1112) 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; parallel detection with a nonphospho ErbB2 antibody confirms total receptor expression across conditions, supporting phosphorylation-dependent adaptor recruitment at Tyr1112.



Phospho-ErbB2 (pY1112) Antibody Dot Blot Specificity. Dot blot analysis of Phospho-ErbB2 (pY1112) 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 Tyr1112. 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 cellular proliferation, survival, and differentiation through activation of intracellular signaling pathways. Phospho-ErbB2 (pY1112) antibody, also referred to as phospho-HER2 antibody and phospho-ERBB2 antibody in the literature, detects phosphorylation at tyrosine 1112, a site associated with recruitment of signaling adaptor proteins and early pathway organization.

Phosphorylation at Y1112 occurs within the intracellular domain of HER2 following receptor activation and contributes to the formation of signaling complexes that direct downstream pathway engagement. This site is positioned to facilitate interactions with adaptor proteins that link HER2 activation to pathways such as PI3K/AKT and MAPK. As a result, phosphorylation at Y1112 is associated with signal routing, where activated receptors begin directing downstream signaling toward specific cellular responses.

HER2 signaling is a major driver of tumor biology, particularly in cancers characterized by ERBB2 amplification such as breast carcinoma. In these tumors, phosphorylation at sites including Y1112 contributes to assembly of signaling complexes that regulate proliferation and survival. Detection of this phosphorylation event provides insight into how activated HER2 engages downstream pathways at an early organizational stage.

Y1112 functions within a broader phosphorylation network that includes residues such as Y1139, Y1221, Y1222, and Y1248. While residues like Y1221 and Y1222 contribute to adaptor recruitment and signal amplification, Y1112 is positioned to influence how signals are directed and distributed across pathways. This highlights its role in shaping signaling output rather than simply initiating or sustaining activation.

Because phosphorylation at Y1112 occurs early in the signaling cascade but contributes to pathway organization, it is useful for studying how HER2 activation leads to specific downstream effects. This includes investigation of pathway bias, signaling specificity, and receptor-driven cellular responses in both normal and disease contexts.

Phospho-specific detection of ERBB2 at Y1112 enables selective analysis of receptor activation at the level of adaptor engagement and signal routing. This complements detection of activation markers such as Y1248 and downstream propagation sites such as Y1222, providing a more detailed view of HER2 signaling dynamics.

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

Application Notes

Titration of the Phospho-ErbB2 (pY1112) Antibody / Adaptor Recruitment 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 pY1112 of human HER2/ErbB2.

Storage

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

Alternate Names

Phospho-ErbB2 (pY1112) antibody, phospho-HER2 Tyr1112 antibody, ERBB2 pY1112 antibody, HER2 adaptor binding antibody, HER2 signaling recruitment antibody