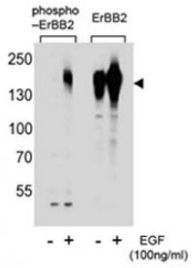
Phospho-ErbB2 (pS1107) Antibody / Regulatory Site (F48687)

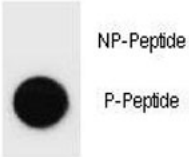
Catalog No.	Formulation	Size
F48687-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F48687-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

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 : 1:1000 Dot Blot : 1:500
Limitations	This Phospho-ErbB2 (pS1107) Antibody / Regulatory Site is available for research use only.



Phospho-ErbB2 (pS1107) Antibody EGF-Stimulated WB. Western blot analysis of human A431 cell lysates treated with or without EGF (100 ng/ml) using Phospho-ErbB2 (pS1107) 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 regulatory signaling at Ser1107.



Phospho-ErbB2 (pS1107) Antibody Dot Blot Specificity. Dot blot analysis of Phospho-ErbB2 (pS1107) 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 Ser1107. 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 (pS1107) antibody, also referred to as phospho-HER2 antibody and phospho-ERBB2 antibody in the literature, detects phosphorylation at serine 1107, a regulatory residue located within the intracellular domain of HER2.

Phosphorylation of HER2 occurs at multiple residues, including tyrosine and serine sites, which together coordinate receptor activation, signaling output, and regulatory control. While tyrosine phosphorylation is primarily associated with activation of downstream pathways such as PI3K/AKT and MAPK, serine phosphorylation contributes to modulation of receptor activity, influencing signaling dynamics and cellular responses.

Phosphorylation at S1107 reflects regulatory control within the HER2 signaling network, where multiple post-translational modifications work together to fine-tune receptor behavior. This may include modulation of receptor stability, interaction with regulatory proteins, or adjustment of signaling intensity under different cellular conditions.

HER2 signaling is a central driver of tumor biology, particularly in cancers characterized by ERBB2 amplification such as breast carcinoma. In these contexts, regulatory phosphorylation events contribute to how signaling pathways are controlled and sustained. Detection of phosphorylation at S1107 provides insight into these regulatory mechanisms beyond primary activation sites.

S1107 functions within a broader phosphorylation network that includes tyrosine residues such as Y1112, Y1139, Y1221, Y1222, and Y1248, which govern initiation, propagation, and activation of HER2 signaling. Analysis of serine phosphorylation complements detection of these sites and supports a more complete understanding of receptor signaling behavior.

Phospho-specific detection of ERBB2 at S1107 enables investigation of regulatory signaling mechanisms and modulation of receptor activity 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 (pS1107) Antibody / Regulatory Site may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

This Phospho-ErbB2 (pS1107) Antibody was produced from rabbits immunized with a KLH conjugated synthetic phospho-peptide corresponding to amino acid residues surrounding pS1107 of human HER2/ERBB2.

Storage

Aliquot the Phospho-ErbB2 (pS1107) Antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Phospho-ErbB2 (pS1107) antibody, phospho-HER2 Ser1107 antibody, ERBB2 pS1107 antibody, HER2 serine phosphorylation antibody