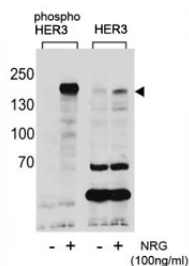


Phospho-HER3 (pY1289) Antibody / Activation Marker (F48624)

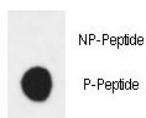
Catalog No.	Formulation	Size
F48624-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F48624-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

[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	P21860
Applications	Dot Blot : 1:500 Western Blot : 1:1000
Limitations	This Phospho-HER3 (pY1289) Antibody / Activation Marker is available for research use only.



Phospho-HER3 (pY1289) Antibody NRG-Stimulated WB. Western blot analysis of human T47D cell lysates treated with or without neuregulin (NRG, 100 ng/ml) using Phospho-HER3 (pY1289) Antibody detects a band at approximately 150–180 kDa in stimulated samples, consistent with the predicted molecular weight of phosphorylated HER3 / ERBB3, while untreated samples show reduced signal; parallel detection with a nonphospho HER3 antibody confirms total receptor expression across conditions, supporting ligand-induced activation at Tyr1289.



Phospho-HER3 (pY1289) Antibody Dot Blot Specificity. Dot blot analysis of Phospho-HER3 (pY1289) Antibody demonstrates strong signal for the phosphorylated peptide and no detectable binding to the corresponding non-phosphorylated peptide, confirming phospho-specific recognition of HER3 / ERBB3 at Tyr1289. Approximately 50 ng of phospho-peptide or non-phospho peptide was applied per spot.

Description

Receptor tyrosine-protein kinase erbB-3 (ERBB3), commonly known as HER3, is a member of the epidermal growth factor receptor family that plays a central role in regulating cell proliferation, survival, and differentiation through receptor-mediated signaling. Phospho-HER3 (pY1289) antibody, also referred to as phospho-ERBB3 antibody and HER3 Tyr1289 antibody in the literature, detects phosphorylation at tyrosine 1289, a key residue associated with receptor activation and downstream signaling.

HER3 signaling is typically initiated through ligand binding, such as neuregulin (NRG), followed by heterodimerization with other ERBB family receptors. This process leads to phosphorylation of intracellular tyrosine residues, including Y1289, which serves as a critical site for recruitment of downstream signaling molecules. Phosphorylation at this residue reflects active signaling and engagement of pathways such as PI3K-AKT, which are essential for cell survival and proliferation.

Unlike total HER3 detection, which reflects overall receptor expression, phosphorylation at Y1289 provides a direct measure of receptor activation state. This makes phospho-HER3 antibodies particularly useful for studying ligand-dependent signaling, receptor activation dynamics, and pathway engagement under specific experimental conditions.

In cancer biology, HER3 activation plays an important role in tumor progression and therapeutic resistance, particularly in epithelial-derived malignancies. Phosphorylation at Y1289 is associated with active signaling complexes and contributes to downstream pathway activation that supports tumor cell growth and survival.

Detection of HER3 phosphorylation is commonly performed in western blot applications using ligand-stimulated cell lysates, where increased signal intensity corresponds to receptor activation. This approach enables analysis of signaling responses and pathway modulation in response to external stimuli.

Phospho-HER3 (pY1289) functions within a broader ERBB signaling network and complements analysis of total HER3 expression. Together, these approaches provide a more complete understanding of receptor biology and signaling behavior.

For detection of total HER3 expression, see our [HER3 antibody page](#).

Application Notes

Titration of the Phospho-HER3 (pY1289) Antibody / Activation Marker may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

This Phospho-HER3 (pY1289) Antibody was produced from rabbits immunized with a KLH conjugated synthetic phospho-peptide corresponding to amino acid residues surrounding pY1289 of human HER3/ERBB3.

Storage

Aliquot the Phospho-HER3 (pY1289) Antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Phospho-HER3 (pY1289) antibody, phospho-ERBB3 Tyr1289 antibody, HER3 pY1289 antibody

