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Datasheet for 200-401-205

HER3 Antibody

Overview

Description:	Anti-HER3 (RABBIT) Antibody - 200-401-205
Item No.:	200-401-205
Size:	250 µg
Applications:	ELISA, IP, WB
Reactivity:	Human
Host Species:	Rabbit

Product Details

Background:	HER3 antibody is ideal for western blotting, ELISA and IP. The human Epidermal Growth Factor Receptor (EGFR) family is a family of receptor tyrosine kinases consisting of 4 members: EGFR, HER2, HER3 and HER4. These receptors are expressed on a wide variety of tissue types and have been implicated in many human cancers, including breast, gastric, colon and prostate. Strong expression of both HER3 and HER2 (also known as p185neu) by tumor cells can be associated with poor outcome for patients. The ligand for HER3 and HER4 is called Neu Differentiation Factor (NDF) or Heregulin. In some instances, antibodies against these receptors prove effective in combination therapy regimens for treatment of the disease. Signaling through the EGFR family involves the combinatorial dimerization of the four known family members and is mediated by at least 8 different hormones, including EGF and the heregulins. Heregulin binding and tyrosine phosphorylation by HER3 or HER4 is enhanced in the presence of HER2. Structurally the members of the EGFR family are 1210 to 1342 amino acids in length with approximately 650 amino acids of the extracellular domain being heavily glycosylated. The extracellular domains show up to 70% sequence homology.
Synonyms:	rabbit anti-HER3 Antibody, HER, c erbB 3 antibody, c erbB3 antibody, ERBB3 antibody, ERBB3 protein antibody, erbB3 S antibody, Glial growth factor receptor antibody
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	ERBB3

Reactivity:	Human
Immunogen Type:	Recombinant Protein
Immunogen:	Anti-HER3 whole rabbit serum was prepared by repeated immunizations with a HER3 fusion protein corresponding to amino acids 1283 to 1323 (40 amino acids) at the carboxy-terminus of human HER3.
Purity/Specificity:	Rabbit Anti-HER3 is an IgG fraction antibody purified from monospecific antiserum by Protein A chromatography followed by cross adsorption against GST and extensive dialysis against the buffer stated above. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Rabbit Serum. The antibody is directed against human HER3 and is useful in determining its presence in immunoprecipitation experiments. This antibody can detect HER3 from human, mouse and rat sources. Reactivity of this antibody with HER3 from other species is unknown.
Relevant Links:	• UniProtKB - P21860 • NCBI - NP_001005915.1 • GeneID - 2065

Application Details

Tested Applications:	ELISA, IP, WB
Application Note:	Anti-HER3 antibody has been tested by ELISA, immunoprecipitation, and western blot and is specifically designed for immunoprecipitation and can be used for immunoblotting in conjunction with a detection antibody like anti-phosphotyrosine. Reactivity in other assays is likely, but has not been determined. Recognition of HER3 is independent of the phosphorylation status of the molecule. Human prostate cell lines (LNCap) or human breast cell line (MDA-453) are typically used as positive control sources. For immunoprecipitation use approximately 5 µL of the antibody. The immunoprecipitation mix contained the antibody, 25 µL of Protein A-agarose beads and 1.0 ml of lysate (lysate contains approximately 1.0 mg of total protein). This mixture is rotated overnight at 4°C and then washed 3 times with lysis buffer (used to prepare the lysate). The resulting bead complex is dissolved in 20-30 µL of 3X SDS-PAGE sample buffer and approximately 15 µL is loaded per lane on an 8% polyacrylamide gel. The combination of immunoprecipitation and immunoblotting was performing using the anti-HER3 antibody for immunoprecipitation followed by immunoblot detection using an anti-phosphotyrosine antibody. The complex is then reacted with HRP Goat-anti-Rabbit IgG and ECL for detection and shows a single HER3 band at 180kDa. Researchers should determine optimal titers for other applications.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000 - 1:50,000
IP:	Use 5 µL antibody.
WB:	1:500- 1:2,000

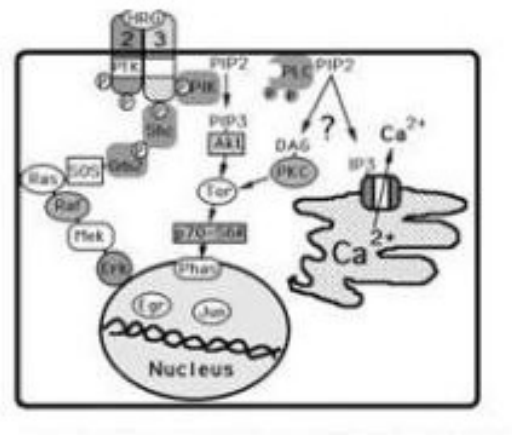
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	2.5 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

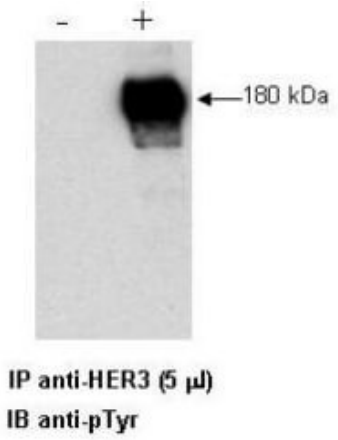
Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store Anti-HER3 at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Pathway
Signaling pathways activated by the ErB3/HER3 Receptor.



Western Blot

Combined immunoprecipitation and western blot of a human cell lysate using anti-HER3 antibody. Lysates were prepared from a human LNCap prostate cell line both with (+) treatment with Heregulin-b1 for 15' at 100 ng/ml and without (-) the addition of Heregulin-b1. The combination of immunoprecipitation and western blotting was performing using 5 µl of the anti-HER3 antibody for immunoprecipitation followed by western blot detection using an anti-phosphotyrosine antibody. Visualization occurred using an ECL system. Film exposure approximately 1'. Other detection systems will yield similar results.

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