Phospho-HER2 Sampler Kit

E051030

Kits Includes	Cat.	Quantity	Application	Reactivity	Source
HER2 (Phospho-Tyr877) Antibody	E011075-1	50μg/50μl	IHC, WB, IF	Human, Mouse, Rat	Rabbit
HER2 (Phospho-Tyr1221/Tyr1222) Antibody	E011076-1	50μg/50μl	IHC, WB, IF	Human	Rabbit
HER2 (Phospho-Tyr1248) Antibody	E011079-1	50μg/50μl	IHC, WB, IF	Human, Mouse, Rat	Rabbit
HER2 (Ab-877) Antibody	E021070-1	50μg/50μl	IHC, WB, IF	Human, Mouse, Rat	Rabbit
HER2 (Ab-1248) Antibody	E021072-1	50μg/50μl	IHC, WB, IF	Human, Mouse, Rat	Rabbit

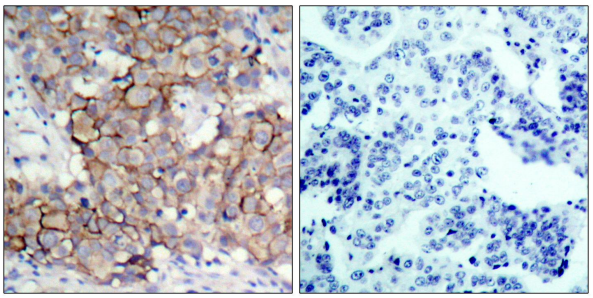
ERBB2 gene encodes a member of the epidermal growth factor (EGF) receptor family of receptor tyrosine kinases. This protein has no ligand binding domain of its own and therefore cannot bind growth factors. However, it does bind tightly to other ligand-bound EGF receptor family members to form a heterodimer, stabilizing ligand binding and enhancing kinase-mediated activation of downstream signalling pathways, such as those involving mitogen-activated protein kinase and phosphatidylinositol-3 kinase. Allelic variations at amino acid positions 654 and 655 of isoform a (positions 624 and 625 of isoform b) have been reported, with the most common allele, Ile654/Ile655, shown here. Amplification and/or overexpression of this gene has been reported in numerous cancers, including breast and ovarian tumors. Alternative splicing results in several additional transcript variants, some encoding different isoforms and others that have not been fully characterized. Essential component of a neuregulin-receptor complex, although neuregulins do not interact with it alone. GP30 is a potential ligand for this receptor. Not activated by EGF, TGF-alpha and amphiregulin.

The epidermal growth factor receptor (EGFR) is a receptor tyrosine kinase of the ErbB family. Four members of the ErbB family have been identified; EGFR (ErbB1, HER1), ErbB2 (HER2), ErbB3 (HER3) and ErbB4 (HER4). EGFR signaling is initiated by ligand binding to the extracellular ligand binding domain. This initiates receptor homo-/hetero-dimerization and autophosphorylation by the intracellular kinase domain, resulting in receptor activation. Following activation, phosphorylation of cytoplasmic substrates occurs and a signaling cascade is initiated that drives many cellular responses, including changes in gene expression, cytoskeletal rearrangement, anti-apoptosis and increased cell proliferation.

HER2 (Phospho-Tyr877) Antibody

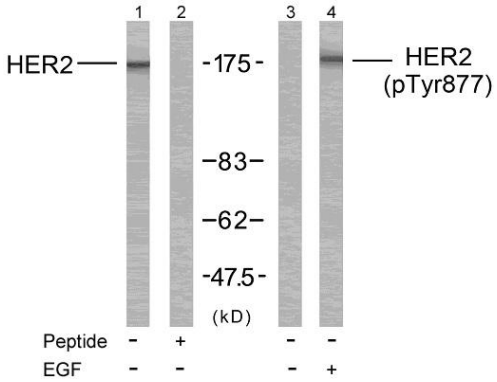
E011075

Catalog Number: E011075-1, E011075-2
Amount: 50μg/50μl, 100μg/100μl
Form of Antibody: Rabbit IgG in phosphate buffered saline (without Mg^{2+} and Ca^{2+}), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage/Stability: Store at -20˚C/1 year
Immunogen: The antiserum was produced against synthesized phosphopeptide derived from human HER2 around the phosphorylation site of tyrosine 877 (T-E-Y^P-H-A).
Purification: The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific phosphopeptide. The antibody against non-phosphopeptide was removed by chromatogramphy using non-phosphopeptide corresponding to the phosphorrylation site.
Specificity/Sensitivity: HER2 (phospho-Tyr877) antibody detects endogenous levels of HER2 only when phosphorylated at tyrosine 877.
Reactivity: Human, Mouse, Rat
Applications: WB: 1:500~1:1000 IHC: 1:50~1:100 IF:1:100~1:200
Swiss-Prot No. : P04626
References: Dittadi, R. et al. (2000) J. Natl. Cancer Inst. 92, 1443-1444.
Muthuswamy, S. K. et al. (1999) Mol. Cell. Biol. 19, 6845-6857.
Qian, X. et al. (1994) Proc. Natl. Acad. Sci. USA 91, 1500-1504.



P-Peptide - +

Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue, using HER2 (phospho-Tyr877) antibody.

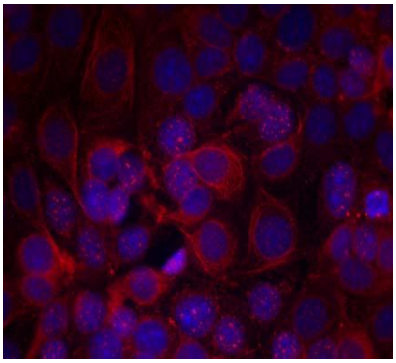


Western blot analysis of extract from MDA-MB-231 cells treated or untreated with EGF using HER2 Antibody and HER2 (phospho- Tyr877) antibody.

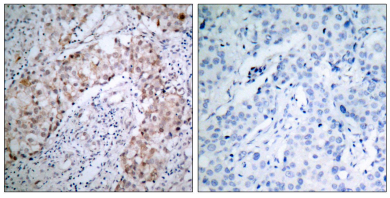
HER2 (Phospho-Tyr1221/Tyr1222) Antibody

E011076

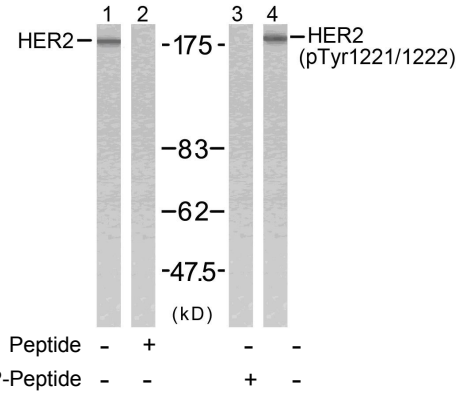
Catalog Number: E011076-1, E011076-2
Amount: 50μg/50μl, 100μg/100μl
Form of Antibody: Rabbit IgG in phosphate buffered saline (without Mg^{2+} and Ca^{2+}), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage/Stability: Store at -20℃/1 year
Immunogen: The antiserum was produced against synthesized phosphopeptide derived from human HER2 around the phosphorylation site of tyrosine1221/1222 (N-L-Y^P-Y^P -W).
Purification: The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific phosphopeptide. The antibody against non-phosphopeptide was removed by chromatogramphy using non-phosphopeptide corresponding to the phosphorylation site.
Specificity/Sensitivity: HER2 (phospho-Tyr1221/Tyr1222) antibody detects endogenous levels of HER2 only when phosphorylated at tyrosine 1221/1222.
Reactivity: Human
Applications: WB: 1:500~1:1000 IHC: 1:50~1:100 IF:1:100~1:200
Swiss-Prot No. : P04626
References: Marone R, et al. (2004) Nat Cell Biol; 6(6): 515-22.
Ren Z, et al. (2002) J Biol Chem; 277(41): 38486-93.



Immunofluorescence staining of methanol-fixed MCF7 cells
Using HER2 (phospho- Tyr1221/ Tyr1222) antibody.



Immunohistochemical analysis of paraffin- embedded human breast carcinoma tissue using HER2 (phospho-Tyr1221/Tyr1222) antibody.

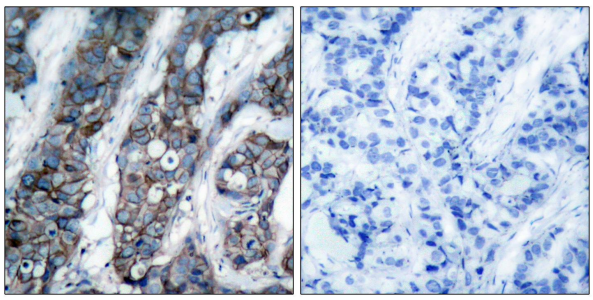


Western blot analysis of extracts from SK-OV3 cells using HER2 antibody and HER2 (phospho-Tyr1221/Tyr1222) antibody.

HER2 (Phospho-Tyr1248) Antibody

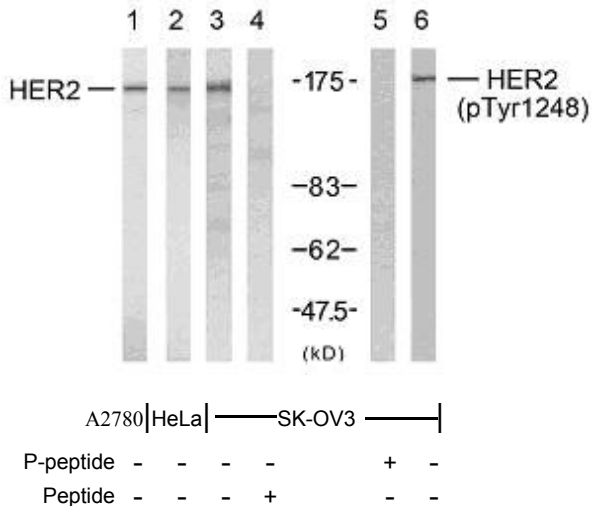
E011079

Catalog Number: E011079-1, E011079-2
Amount: 50μg/50μl, 100μg/100μl
Form of Antibody: Rabbit IgG in phosphate buffered saline (without Mg^{2+} and Ca^{2+}), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage/Stability: Store at -20℃/1 year
Immunogen: The antiserum was produced against synthesized phosphopeptide derived from human HER2 around the phosphorylation site of tyrosine1248 (P-E-Y^P-L-G).
Purification: The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific phosphopeptide. The antibody against non-phosphopeptide was removed by chromatogramphy using non-phosphopeptide corresponding to the phosphorylation site.
Specificity/Sensitivity: HER2 (phospho-Tyr1248) antibody detects endogenous levels of HER2 only when phosphorylated at tyrosine1248.
Reactivity: Human, Mouse, Rat
Applications: WB: 1:500~1:1000 IHC: 1:50~1:100 IF:1:100~1:200
Swiss-Prot No. : P04626
References:
Ramsauer VP, et al. (2003) J Biol Chem; 278(32): 30142-7.
Jepson S, et al. (2002) Oncogene; 21(49): 7524-32.
Ren Z, et al. (2002) J Biol Chem; 277(41): 38486-93.
Eppenberger-Castori S, et al. (2001) J Clin Oncol; 19(3): 645-56.



P-Peptide - +

Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using HER2 (phospho-Tyr1248) antibody.

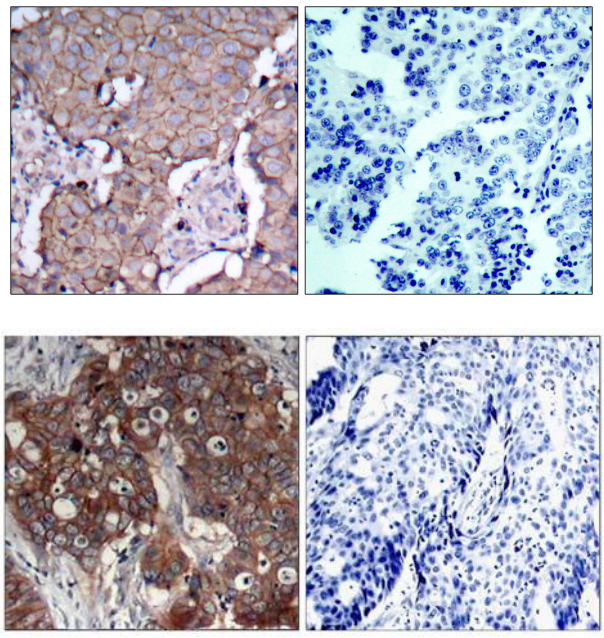


Western blot analysis using HER2 antibody and HER2 (phospho-Tyr1248) antibody.

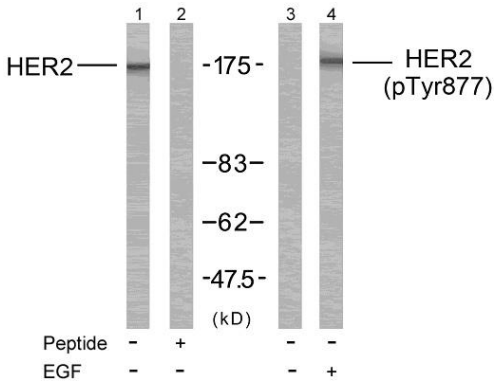
HER2 (Ab-877) Antibody

E021070

Catalog Number: E021070-1, E021070-2
Amount: 50μg/50μl, 100μg/100μl
Form of Antibody: Rabbit IgG in phosphate buffered saline (without Mg^{2+} and Ca^{2+}), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage/Stability: Store at -20℃/1 year
Immunogen: The antiserum was produced against synthesized non-phosphopeptide derived from human HER2 around the phosphorylation site of tyrosine 877 (T-E-Y^P-H-A).
Purification: The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Specificity/Sensitivity: HER2 (Ab-877) antibody detects endogenous levels of total HER2 protein.
Reactivity: Human, Mouse, Rat
Applications: WB: 1:500~1:1000 IHC: 1:50~1:100 IF:1:100~1:200
Swiss-Prot No. : P04626
References:
Dittadi, R. et al. (2000) J. Natl. Cancer Inst. 92, 1443-1444.
Muthuswamy, S. K. et al. (1999) Mol. Cell. Biol. 19, 6845-6857.
Qian, X. et al. (1994) Proc. Natl. Acad. Sci. USA 91, 1500-1504.
Kwon, Y. K. et al. (1997) J. Neurosci. 17, 8293-8299.
Klapper, L. N. et al. (2000) Cancer Res. 60, 3384-3388.



Peptide - +
Immunohistochemical analysis of paraffin- embedded human breast carcinoma tissue using HER2 antibody.

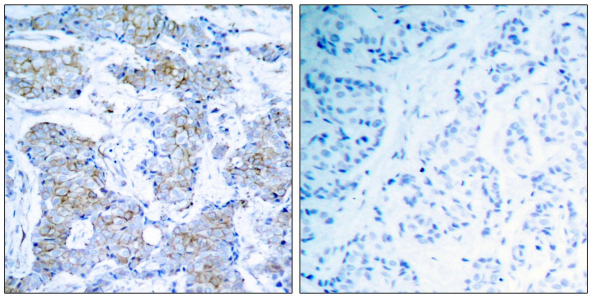


Western blot analysis of extracts from MDA-MB-231 cells using HER2 antibody and HER2 (phospho-Tyr877) antibody.

HER2 (Ab-1248) Antibody

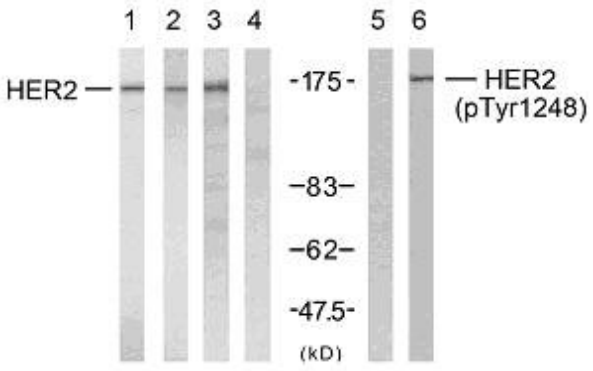
E021072

Catalog Number: E021072-1, E021072-2
Amount: 50μg/50μl, 100μg/100μl
Form of Antibody: Rabbit IgG in phosphate buffered saline (without $Mg^{2+}$and Ca^{2+}), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage/Stability: Store at -20℃/1 year
Immunogen: The antiserum was produced against synthesized non-phosphopeptide derived from human HER2 around the phosphorylation site of tyrosine 1248 (P-E-Y^P-L-G).
Purification: The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Specificity/Sensitivity: HER2 (Ab-1248) antibody detects endogenous levels of total HER2 protein.
Reactivity: Human, Mouse, Rat
Applications: WB: 1:500~1:1000 IHC: 1:50~1:100 IF:1:100~1:200
Swiss-Prot No. : P04626
References: Ramsauer VP, et al. (2003)J Biol Chem; 278(32): 30142-7.
Jepson S, et al. (2002)Oncogene; 21(49): 7524-32.
Ren Z, et al. (2002)J Biol Chem; 277(41): 38486-93.
Eppenberger-Castori S, et al. (2001)J Clin Oncol; 19(3): 645-56.



Peptide - +

Immunohistochemical analysis of paraffin- embedded human breast carcinoma tissue using HER2 antibody.



Western blot analysis using HER2 antibody and HER2 (phospho- Tyr1248) antibody.