Technical Data Sheet

Purified Mouse Anti-Human c-ErbB-2

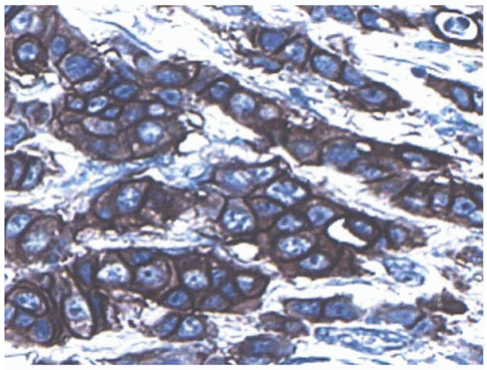
Product Information

Material Number:	**554299**
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	3B5
Immunogen:	Human c-erbB-2 aa. 1242-1255
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

C-erbB-2 (also known as HER2/neu), a 185 kDa transmembrane glycoprotein, is a member of the type 1 growth factor receptor subfamily which also includes c-erbB-3, c-erbB-4 and the epidermal growth factor receptor (EGFR), also known as c-erbB-1. Members of this receptor subfamily mediate the proliferation and differentiation of normal cells. They have a common structure consisting of an extracellular domain, a transmembrane region, and a cytoplasmic sequence. The extracellular regions contain two cysteine-rich domains, and the intracellular regions have sequence homology to known tyrosine kinases. C-erbB-2 reactivity has been detected in proximal kidney tubules, mucosal epithelium in the gastrointestinal tract, and squamous epithelium in skin. Most normal adult tissues show little or no reactivity with antibodies against c-erbB-2. However, c-erbB-2 is overexpressed in many human breast, stomach, ovary and bladder carcinomas. EGFR, c-erbB-3 and c-erbB-4 are also overexpressed in various human tumor cells, and it is thought that aberrant activation of type 1 growth factor kinase activities may contribute to tumor progression.

The antibody 3B5 recognizes human c-erbB-2. A synthetic peptide corresponding to amino acids 1242-1255 (TAENPEYLGLDVPV) in the C-terminal domain of human c-erbB-2 was used as immunogen.



Immunohistochemical staining for c-erbB-2.
Formalin-fixed, paraffin-embedded tissue section of human breast cancer stained with Anti-Human c-ErbB-2 (clone 3B5, Cat. No. 554299) using a DAB chromogen and Hematoxylin counterstain.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at 4°C.

Application Notes

Application

Western blot	Routinely Tested
Immunohistochemistry-paraffin	Tested During Development
Immunohistochemistry-frozen	Reported
Immunoprecipitation	Reported

Recommended Assay Procedure:

Applications include immunoprecipitation (1-2 µg/one million cells), western blot analysis (1-2 µg/ml), and immunohistochemistry of frozen and formalin-fixed paraffin-embedded tissue sections (5-20 µg/ml). Positive control cell lines include MCF7 cells (ATCC HTB 22) and SK-BR-3 (ATCC HTB 30) human breast carcinoma cells.

BD Biosciences

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	888.259.0187	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country-specific contact information, visit **bdbiosciences.com/how_to_order/**

Suggested Companion Products

Catalog Number	Name	Size	Clone
611548	MCF7 Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

Carraway KL 3rd, Cantley LC. A neu acquaintance for erbB3 and erbB4: a role for receptor heterodimerization in growth signaling. *Cell.* 1994; 78(1):5-8.(Biology)

Hancock MC, Langton BC, Chan T, et al. A monoclonal antibody against the c-erbB-2 protein enhances the cytotoxicity of cis-diamminedichloroplatinum against human breast and ovarian tumor cell lines. *Cancer Res.* 1991; 51(17):4575-4589.(Biology)

Hesketh R. *The Oncogene Handbook.* New York: Academic Press; 1994:485-509.(Biology)

Martinazzi M, Crivelli F, Zampatti C, Martinazzi S. Relationships between epidermal growth factor receptor (EGF-R) and other predictors of prognosis in breast carcinomas. An immunohistochemical study. *Pathologica.* 1993; 85(1100):637-644.(Clone-specific: Immunohistochemistry)

Meissner K, Riviere A, Haupt G, Loning T. Study of neu-protein expression in mammary Paget's disease with and without underlying breast carcinoma and in extramammary Paget's disease. *Am J Pathol.* 1990; 137(6):1305-1309.(Clone-specific: Immunohistochemistry)

Penault-Llorca F, Adelaide J, Houvenaeghel G, Hassoun J, Birnbaum D, Jacquemier J. Optimization of immunohistochemical detection of ERBB2 in human breast cancer: impact of fixation. *J Pathol.* 1994; 173(1):65-75.(Clone-specific: Immunohistochemistry)

Schwechheimer K, Laufle RM, Schmahl W, Knodlseder M, Fischer H, Hofler H. Expression of neu/c-erbB-2 in human brain tumors. *Hum Pathol.* 1994; 25(8):772-780.(Clone-specific: Immunohistochemistry)

Singleton TP, Niehans GA, Gu F, et al. Detection of c-erbB-2 activation in paraffin-embedded tissue by immunohistochemistry. *Hum Pathol.* 1992; 23(10):1141-1150.(Clone-specific: Immunohistochemistry)

van de Vijver MJ, Peterse JL, Mooi WJ, et al. Neu-protein overexpression in breast cancer. Association with comedo-type ductal carcinoma in situ and limited prognostic value in stage II breast cancer. *N Engl J Med.* 1988; 319(19):1239-1245.(Clone-specific: Immunohistochemistry, Immunoprecipitation)

Zhau HE, Zhang X, von Eschenbach AC, et al. Amplification and expression of the c-erb B-2/neu proto-oncogene in human bladder cancer. *Mol Carcinog.* 1990; 3(5):254-257.(Clone-specific: Immunohistochemistry, Western blot)