DATA SHEET

c-*erb*B-2 / HER-2 / *neu* Ab-2 (Clone 9G6.10)

Mouse Monoclonal Antibody

Cat. #DLN-08459, DLN-08460, or DLN-08458 (0.1ml, 0.5ml, or 1.0ml at 200µg/ml) (Purified Ab with BSA and Azide)

Cat. #DLN-08461 or DLN-08462 (0.1ml or 0.2ml at 1.0mg/ml) (Purified Ab without BSA and Azide)

Description: c-*erb*B-2, second member (c-*erb*B-2/HER-2/*neu*) of the c-*erb*B family is a receptor tyrosine kinase. It exhibits extracellular domains with two cysteine-rich sequences, and a cytoplasmic tyrosine kinase domain flanked by large hydrophilic tails that carry several tyrosine autophosphorylation sites. Approximately 25% of primary breast and ovarian tumors were found to overexpress the protein

Comments: Ab-2 precipitates a protein of 160kDa from SKBR-3 cells treated with tunicamycin,[2] a drug inhibiting N-linked glycosylation.

Mol. Wt. of Antigen: 185kDa

Epitope: Extracellular domain

Species Reactivity: Human.[1,2] Does not react with mouse and rat. Others-not tested.

Clone Designation: 9G6.10

Ig Isotype: IgG_1

Immunogen: RAC311 cells transfected with SV40-*neu* construct, expressing human *neu* protein[1,2]

Applications and Working Dilutions:

- Partially Inhibits Tyrosine Kinase Activity[2]
  (Order Ab without sodium azide)
- Inhibits Colony Formation[2]
- Flow Cytometry[2,4]
- Immunofluorescence[2]
- Immunoprecipitation[2] (Use Protein G)
  (Ab at 2µg/mg protein lysate)
- Immunohistology (Frozen only)

The optimal dilution for a specific application should be determined by the investigator.

Positive Control: SKBR-3 cells, or breast carcinomas

Cellular Localization: Cell membrane

Supplied As:

200µg/ml of antibody purified from ascites fluid by Protein G chromatography. Prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide. Also available without BSA and azide at 1mg/ml.

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Storage and Stability:

Ab with sodium azide is stable for 24 months when stored at 2-8°C. Antibody WITHOUT sodium azide is stable for 36 months when stored at below 0°C.

Key References:

1. van de Vijver MJ, *et. al.* New England Journal of Medicine, 1988, 319:1239-45.
2. van Leeuwen F, *et. al.* Oncogene, 1990, 5(4):497-503.
3. Rubin SC, *et. al.* American Journal of Obstetrics and Gynecology, 1993, 168:162-9.
4. Stal O, *et. al.* Cytometry, 1994, 16(2):160-8.

Limitations and Warranty:

Our products are intended FOR RESEARCH USE ONLY and are not approved for clinical diagnosis, drug use or therapeutic procedures. No products are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our data sheets and website. Our warranty is limited to the actual price paid for the product. Dianova is not liable for any property damage, personal injury, time or effort or economic loss caused by our products.

Material Safety Data:

This product is not licensed or approved for administration to humans or to animals other than the experimental animals. Standard Laboratory Practices should be followed when handling this material. The chemical, physical, and toxicological properties of this material have not been thoroughly investigated. Appropriate measures should be taken to avoid skin and eye contact, inhalation, and ingestion. The material contains 0.09% sodium azide as a preservative. Although the quantity of azide is very small, appropriate care should be taken when handling this material as indicated above. The National Institute of Occupational Safety and Health has issued a bulletin citing the potential explosion hazard due to the reaction of sodium azide with copper, lead, brass, or solder in the plumbing systems. Sodium azide forms hydrazoic acid in acidic conditions and should be discarded in a large volume of running water to avoid deposits forming in metal drainage pipes.

For Research Use Only

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Additional Key References:

1. 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. Journal of Pathology, 1994 May, 173(1):65-75.

2. Schwechheimer K; Laufle RM; Schmahl W; Knodlseder M; Fischer H; Hofler H. Expression of neu/c-erbB-2 in human brain tumors. Human Pathology, 1994 Aug, 25(8):772-80.

3. Stal O; Sullivan S; Sun XF; Wingren S; Nordenskjold B. Simultaneous analysis of c-erbB-2 expression and DNA content in breast cancer using flow cytometry. Cytometry, 1994, 16(2):160-8.

4. Rubin SC; Finstad CL; Wong GY; Almadrones L; Plante M; Lloyd KO. Prognostic significance of HER-2/neu expression in advanced epithelial ovarian cancer: a multivariate analysis. American Journal of Obstetrics and Gynecology, 1993, 168:162-9.

5. Charpin C; Devictor B; Bonnier P; et. al. Expression of HER-2/neu oncogene in breast cancer: correlation of quantitative immunocytochemistry and prognostic factor. International J. of Cancer, 1992, 1:815-823.

6. Kumar R; Shepard HM; Mendelsohn J. Regulation of phosphorylation of the c-erbB-2/HER2 gene product by a monoclonal antibody and serum growth factor(s) in human mammary carcinoma cells. Molecular and Cellular Biology, 1991 Feb, 11(2):979-86.

7. van Leeuwen F; van de Vijver MJ; Lomans J; van Deemter L; Jenster G; Akiyama T; Yamamoto T; Nusse R. Mutation of the human neu protein facilitates down-modulation by monoclonal antibodies. Oncogene, 1990 Apr, 5(4):497-503.

8. De Potter CR; Quatacker J; Maertens G; Van Daele S; Pauwels C; Verhofstede C; Eechaute W; Roels H. The subcellular localization of the neu protein in human normal and neoplastic cells. International Journal of Cancer, 1989 Dec 15, 44(6):969-74.

9. De Potter CR; Van Daele S; Van de Vijver MJ; Pauwels C; Maertens G; De Boever J; Vandekerckhove D; Roels H. The expression of the neu oncogene product in breast lesions and in normal fetal and adult human tissues. Histopathology, 1989 Oct, 15(4):351-62.

10. van de Vijver MJ; Peterse JL; Mooi WJ; Wisman P; Lomans J; Dalesio O; Nusse R. Neu-protein overexpression in breast cancer. Association with comedo-type ductal carcinoma in situ and limited prognostic value in stage II breast cancer. New England Journal of Medicine, 1988 Nov 10, 319(19):1239-45.

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