

## **Product datasheet for AM50281PU-S**

## OriGene Technologies, Inc.

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## Her2 (ERBB2) Mouse Monoclonal Antibody [Clone ID: HRB2/258]

**Product data:** 

**Product Type:** Primary Antibodies

Clone Name: HRB2/258

**Applications:** FC, IF, IHC, IP, WB

**Recommended Dilution: ELISA:** For coating, order Ab without BSA.

**Flow Cytometry:** 0.5-1 μg/million cells. **Immunofluorescence:** 0.5-1 μg/ml.

**Western Blotting:** 0.5-1 μg/ml for 2 hours at RT. **Immunoprecipitation:** 0.5-1 μg/500 μg protein lysate.

**Immunohistochemistry on Paraffin Sections:** 0.5-1 μg/ml for 30 minutes at RT.

Staining of formalin-fixed tissues requires boiling tissue sections in 10mM citrate buffer, pH

6.0, for 10-20 min followed by cooling at RT for 20 minutes.

Positive Control: SKBR-3 Cells or Breast Cancers.

Reactivity: Human, Rat

Host: Mouse Isotype: IgG2a

Clonality: Monoclonal

**Immunogen:** Recombinant human HER-2 protein.

**Specificity:** Recognizes a protein of 185kDa, which is identified as c-erbB-2/HER-2/neu. Its epitope is

localized in the extracellular domain. C-erbB-2/HER-2 is a member of the EGFR family. This MAb is specific and shows minimal cross-reaction with other members of the EGFR-family. Receptors of this family are located on the plasma membrane and consist of an extracellular ligand-binding domain that is connected to a large intracellular domain by a single transmembrane sequence. C-erbB-2/HER-2 protein is over-expressed in a variety of

carcinomas especially those of breast and ovary.

Cellular Localization: Cell surface.

Formulation: 10mM PBS

State: Purified

State: Liquid purified IgG fraction from Bioreactor Concentrate

Stabilizer: 0.05% BSA

Preservative: 0.05% Sodium Azide





**Concentration:** lot specific

**Purification:** Protein A/G Chromatography

Conjugation: Unconjugated

**Storage:** Store undiluted at 2-8°C.

**Stability:** Shelf life: one year from despatch.

Predicted Protein Size: 185 kDa

**Gene Name:** erb-b2 receptor tyrosine kinase 2

Database Link: Entrez Gene 2064 Human

P04626

Background: The c-erbB-2 (HER-2/neu) proto-oncogene encodes a 185 kDa transmembrane receptor

protein. It has partial homology with the epidermal growth factor receptor and shares intrinsic tyrosine kinase activity with that receptor. C-erbB-2 heterodimerize with the EGF receptor, erbB-3 receptor, and the erbB-4 receptor. HER- 2/neu was originally identified as a transforming oncogene in chemically induced rat neuroglioblastomas, where a single point mutation in the transmembrane domain of the molecule is sufficient to confer oncogenic activation. In contrast, in human breast and ovarian cancers, the receptor is activated through amplification and overexpression of the wild-type gene. This alteration occurs in 25%-30% of cases and is associated with a poor prognosis. The poor prognosis of ovarian and breast cancer patients associated with c-erbB-2 overexpression seemed to be sufficiently explained by a c-erbB-2-mediated high rate of tumor cell proliferation. Amplification of cerbB-2 proto-oncogene has been reported in endocrine tumors. C-erbB-2 may play a role in the genesis of human gastric, endometrial and salivary gland cancers. The concentration of cerbB-2 protein in serum can be a sensitive indicator for prognosis of the gastric carcinoma that express cerbB- 2. The c-erbB-2 protein expression might be enhanced in advanced stages during the progression of gastric carcinoma. CerbB- 2 oncoprotein is detectable in adenocarcinomas as well as in transitional cell carcinomas. Topoisomerase II, which

correlates with c-erbB-2 expression, contributes to the resistance of c-erbB-2 overexpressing

carcinomas.

Also known as erbB2 and CD40, HER-2 is closely related in structure to the epidermal growth factor receptor. It is over-expressed in a variety of carcinomas, especially those of breast and

ovary.

Synonyms: HER-2, NEU, p185erbB2, NGL, c-erbB-2, MNL19