

**Rabbit Anti-HER2 [MD13R]: RM0254**

**Intended Use:** For Research Use Only

**Description:** HER2 is a receptor tyrosine kinase of the c-erbB family. It is closely related in structure to the epidermal growth factor receptor. c-erbB-2 oncoprotein is detectable in a proportion of breast and other adenocarcinomas, as well as transitional cell carcinomas. In the case of breast cancer, expression determined by immunohistochemistry has been shown to be associated with poor prognosis. HER2 is one of the four members of the ErbB receptor family of transmembrane receptor-like tyrosine kinases. The kinase activity of ErbB2 can be activated without ligand if it is overexpressed, and by association with other ErbB proteins. Overexpression of ErbB2 is detected in almost 40% of human breast cancers. Each laboratory should validate it by its own procedure.

**Specifications:**

Clone: MD13R  
Source: Rabbit  
Isotype: IgG  
Reactivity: Human  
Localization: Membrane  
Formulation: Antibody in PBS pH7.4, containing BSA and  $\leq 0.09\%$  sodium azide (NaN<sub>3</sub>)  
Storage: Store at 2°- 8°C  
Applications: IHC  
Package:

Description	Catalog No.	Size
HER2 Concentrated	RM0254	1 ml
HER2 Prediluted	RM0254RTU7	7 ml

**IHC Procedure\*:**

Positive Control Tissue: Breast cancer  
Concentrated Dilution: 50-200  
Pretreatment: Citrate pH6.0 or EDTA pH8.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C  
Incubation Time and Temp: 30-60 minutes @ RT  
Detection: Refer to the detection system manual

\* Result should be confirmed by an established diagnostic procedure.

**References:**

1. pH-responsive artemisinin derivatives and lipid nanoparticle formulations inhibit growth of breast cancer cells in vitro and induce down-regulation of HER family members. Zhang YJ et al. PLoS One 8:e59086 2013.
2. HER2/HER3 regulates extracellular acidification and cell migration through MTK1 (MEKK4). Sollome JJ et al. Cell Signal 26:70-82 2013.
3. Expression of cell cycle-associated proteins in non-muscle-invasive bladder cancer: correlation with intravesical recurrence following transurethral resection. Behnsawy HM et al. Urol Oncol 29:495-501 2011.
4. Estrogen induces apoptosis in estrogen deprivation-resistant breast cancer through stress responses as identified by global gene expression across time. Ariazi EA et al. Proc Natl Acad Sci U S A 108:18879-86 2011.
5. Silencing of ErbB3/ErbB2 signaling by immunoglobulin-like Nect-2. Kawano S et al. J Biol Chem 284:23793-805 2009.

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