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**Recombinant Human Receptor Tyrosine-Protein Kinase ErbB-2/HER2 Protein(C-6His)****Cat.NO.: TP05171**

3th Edition

**Synonyms:** Receptor tyrosine-protein kinase erbB-2; Metastatic lymph node gene 19 protein; Proto-oncogene Neu; Tyrosine kinase-type cell surface receptor HER2; ERBB2; MLN19; NGL; TKR1

**Description:** Human epidermal growth factor receptor 2 (HER2) is a type of membrane glycoprotein, and belongs to the epidermal growth factor (EGF) receptor family. HER2 plays a key role in development, cell proliferation and differentiation. HER2 has been reported to associate with malignancy and a poor prognosis in numerous carcinomas, including breast, prostate, ovarian, lung cancers and so on. HER2 is activated by dimerization and not activated by EGF, TGF- $\alpha$  and amphiregulin. Interaction with PTK6 increases its intrinsic kinase activity. It is heterodimer with EGFR, ERBB3 and ERBB4. HER2 associates with the 5'-TCAAATTC-3' sequence in the PTGS2/COX-2 promoter and activates its transcription. It is implicated in transcriptional activation of CDKN1A and the function of the protein involves STAT3 and SRC. And also it is involved in the transcription of rRNA genes by RNA Pol I and enhances protein synthesis and cell growth.

**Form:** PBS

**Molecular Weight:** 70.1 kDa

**Sequences:** Thr 23-Thr652

**Purity:** > 95% by HPLC

**Concentration:**

**Endotoxin Level:** <1.0 EU per 1  $\mu$ g of protein (determined by LAL method)

**Storage:** Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.