

# Recombinant Human Tyrosine Kinase receptor ErbB-3

## Certificate of Analysis and Data Sheet

➤ <b>Source:</b> E.Coli	➤ <b>Catalog No.</b> CTK-293
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### ➤ **Background:**

ErbB3/Her3 (human epidermal growth factor receptor 3), is a type I membrane glycoprotein that is a member of the ErbB family of tyrosine kinase receptors. ErbB family members serve as receptors for the epidermal growth factor (EGF) family of growth factors. Among ErbB family members, ErbB3 is unique in that it contains a defective kinase domain. ErbB3 is expressed in keratinocytes, melanocytes, skeletal muscle cells, embryonic myoblasts and Schwann cells. Monomeric ErbB3 serves as a low affinity receptor for the heregulins (HRG).

ErbB3 can induce specific antibody production in vivo, hence to inhibit tumor cell growth. ErbB-3 can be used to treat early, medium and advanced or post-operative breast cancer with over-expression of ErbB2. According to its mechanism of action, ErbB3 is classified as a therapeutic for cancer.

### ➤ **Description :**

Recombinant Human extracellular domain Tyrosine kinase ErbB3 (HER3) produced in E.Coli is a single, non-glycosylated, fusion polypeptide chain containing 190 amino acids (Met1- Cys190) and having a total molecular mass of 34 kDa.

Recombinant Human ErbB3 is purified by proprietary chromatographic techniques.

### ➤ **Physical Appearance:**

A white semitransparent suspension at a concentration of 1mg/ml.

### ➤ **Formulation:**

Each mg protein contains 1 mg aluminum hydroxide 10mM arginine, 10mM sodium chloride, 20mM sodium phosphate buffer and 5mM potassium phosphate.

➤ **Stability:**

Recombinant Human ErbB3 although stable at 14°C for 1 week, should be stored desiccated below -18°C. For long-term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

**Please avoid freeze-thaw cycles.**

➤ **Purity:**

Greater than 95.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Anion-exchange FPLC.

(c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel.

➤ **Dimers and aggregates:**

Less than 1% as determined by silver-stained SDS-PAGE gel analysis.

➤ **Biological Activity:**

This Recombinant ErbB3 is fully biologically active when compared to standard. Measured by its ability to postpone tumor emerge time of spontaneous breast cancer in FVB/N transgenic mice and inhibit the development of tumor, effectively inhibit the growth of in situ transplanted breast cancer in FVB/N transgenic mice.

➤ **Endotoxin:**

Less than 0.1 ng/μg (IEU/μg) of Recombinant Human Tyrosine Kinase ErbB3.

➤ **Protein content:**

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm.

2. Analysis by RP-HPLC, using a standard solution of ErbB3 as a Reference Standard.

➤ **Usage:**

This material is offered for research, laboratory or further evaluation purposes.