

**DESCRIPTION**

<b>Source</b>	Mouse myeloma cell line, NS0-derived			
	Human ErbB3 (Ser20-Thr643) Accession # P21860	IEGRMD	Human IgG <sub>1</sub> (Pro100-Lys330)	6-His tag
	N-terminus		C-terminus	

**N-terminal Sequence** Ser20

**Analysis**

**Structure / Form** Disulfide-linked homodimer

**Predicted Molecular Mass** 96 kDa (monomer)

**SPECIFICATIONS**

<b>SDS-PAGE</b>	130-140 kDa, reducing conditions
<b>Activity</b>	Measured by its ability to inhibit the biological activity of Neuregulin-1-β1 on MCF-7 human breast cancer cells. Karey, K.P. <i>et al.</i> (1988) Cancer Research <b>48</b> :4083. The ED <sub>50</sub> for this effect is 1.5-6.0 μg/mL in the presence of 10 ng/mL Recombinant Human NRG1-β1/HRG1-β1 Extracellular Domain (Catalog # 377-HB).
<b>Endotoxin Level</b>	<0.01 EU per 1 μg of the protein by the LAL method.
<b>Purity</b>	>90%, by SDS-PAGE under reducing conditions and visualized by silver stain.
<b>Formulation</b>	Lyophilized from a 0.2 μm filtered solution in PBS. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 100 μg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 3 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**BACKGROUND**

ErbB3, also called 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 heterodimerizes with ErbB2 to form a high affinity receptor complex. In contrast, ErbB3 homodimerization or heterodimerization with ErbB4 forms a low affinity heregulin-binding complex. Because ErbB3 contains a defective kinase domain, the kinase domain of ErbB2 is responsible for initiating the tyrosine phosphorylation signal through the heterodimeric receptor. It has been found that a discrete three amino acid signal in the ErbB3 cytoplasmic domain is critical for transactivation of ErbB2. The cytoplasmic domain of ErbB3 also contains six consensus binding motifs for the SH2 domain of the regulatory p85 subunit of phosphoinositide 3-kinase (PI 3-kinase, PI3K) as well as one proline-rich consensus binding motif for the SH3 domain of p85. Human ErbB3 consists of 1342 amino acids (aa) with a 19 aa signal sequence, a 624 aa extracellular domain, a 21 aa transmembrane region, and a 678 aa cytoplasmic domain. ErbB3 appears to play roles in development, cancer, communication at the neuromuscular junction and regulation of cell growth and differentiation

**References:**

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