

## DESCRIPTION

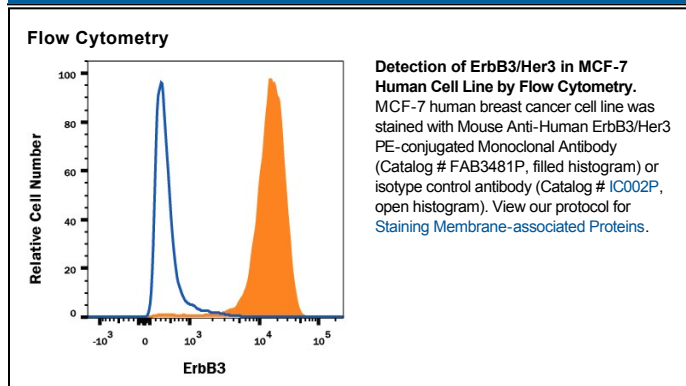
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human ErbB3/Her3 in direct ELISAs. Does not cross-react with recombinant human EGF R.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 66223
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human ErbB3/Her3 Ser20-Thr643 Accession # P21860
<b>Conjugate</b>	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
<b>Formulation</b>	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.  *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
<b>Flow Cytometry</b>	10 $\mu$ L/10 <sup>6</sup> cells	See Below

## DATA



## PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>

**BACKGROUND**

ErbB3, also known as 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:**

1. Kraus, M.H. *et al.* (1989) Proc. Natl. Acad. Sci. USA **86**:9193.
2. Plowman, G.D. *et al.* (1990) Proc. Natl. Acad. Sci. USA **87**:4905.
3. Carraway, K.L. 3rd *et al.* (1994) J. Biol. Chem. **269**:14303.
4. Emkey, R. and C.R. Kahn (1997) J. Biol. Chem. **272**:31172.
5. Sundaresan, S. *et al.* (1998) Endocrinology **139**:4756.
6. Hellyer, N.J. *et al.* (1998) Biochem. J. **333**:757.
7. Schaefer, G. *et al.* (1999) J. Biol. Chem. **274**:859.
8. Hellyer, N.J. *et al.* (2001) J. Biol. Chem. **276**:42153.
9. Schlessinger, J. (2000) Cell **103**:211.
10. Daly, R.J. (1999) Growth Factors **16**:255.