

**ERBB3 Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO1206a****Specification**

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**ERBB3 Antibody - Product Information**

Application	<b>WB, IHC, ICC, IF</b>
Primary Accession	<a href="#">P21860</a>
Reactivity	<b>Human</b>
Host	<b>Mouse</b>
Clonality	<b>Monoclonal</b>
Isotype	<b>IgG1</b>

**Description**

ERBB3: v-erb-b2 erythroblastic leukemia viral oncogene homolog 3 (avian). This gene encodes a member of the epidermal growth factor receptor (EGFR) family of receptor tyrosine kinases. This membrane-bound protein has a neuregulin binding domain but not an active kinase domain. It therefore can bind this ligand but not convey the signal into the cell through protein phosphorylation. However, it does form heterodimers with other EGF receptor family members which do have kinase activity. Heterodimerization leads to the activation of pathways which lead to cell proliferation or differentiation. Amplification of this gene and/or overexpression of its protein have been reported in numerous cancers, including prostate, bladder, and breast tumors. Alternate transcriptional splice variants encoding different isoforms have been characterized. One isoform lacks the intermembrane region and is secreted outside the cell. This form acts to modulate the activity of the membrane-bound form. Additional splice variants have also been reported, but they have not been thoroughly characterized.

**Immunogen**

Purified recombinant fragment of ERBB3 (aa1175-1275) expressed in E. Coli.

**Formulation**

Ascitic fluid containing 0.03% sodium azide.

**ERBB3 Antibody - Additional Information**

**Gene ID** 2065

**Other Names**

Receptor tyrosine-protein kinase erbB-3, 2.7.10.1, Proto-oncogene-like protein c-ErbB-3, Tyrosine kinase-type cell surface receptor HER3, ERBB3, HER3

**Dilution**

WB~~1/500 - 1/2000  
IHC~~1/200 - 1/1000  
ICC~~1:200~~1000  
IF~~1:200~1000.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

ERBB3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**ERBB3 Antibody - Protein Information**

**Name** ERBB3

**Synonyms** HER3

**Function**

Tyrosine-protein kinase that plays an essential role as cell surface receptor for neuregulins. Binds to neuregulin-1 (NRG1) and is activated by it; ligand-binding increases phosphorylation on tyrosine residues and promotes its association with the p85 subunit of phosphatidylinositol 3-kinase (PubMed:<a href="http://www.uniprot.org/citations/20682778" target="\_blank">20682778</a>). May also be activated by CSPG5 (PubMed:<a href="http://www.uniprot.org/citations/15358134" target="\_blank">15358134</a>). Involved in the regulation of myeloid cell differentiation (PubMed:<a href="http://www.uniprot.org/citations/27416908" target="\_blank">27416908</a>).

**Cellular Location**

[Isoform 1]: Cell membrane; Single-pass type I membrane protein

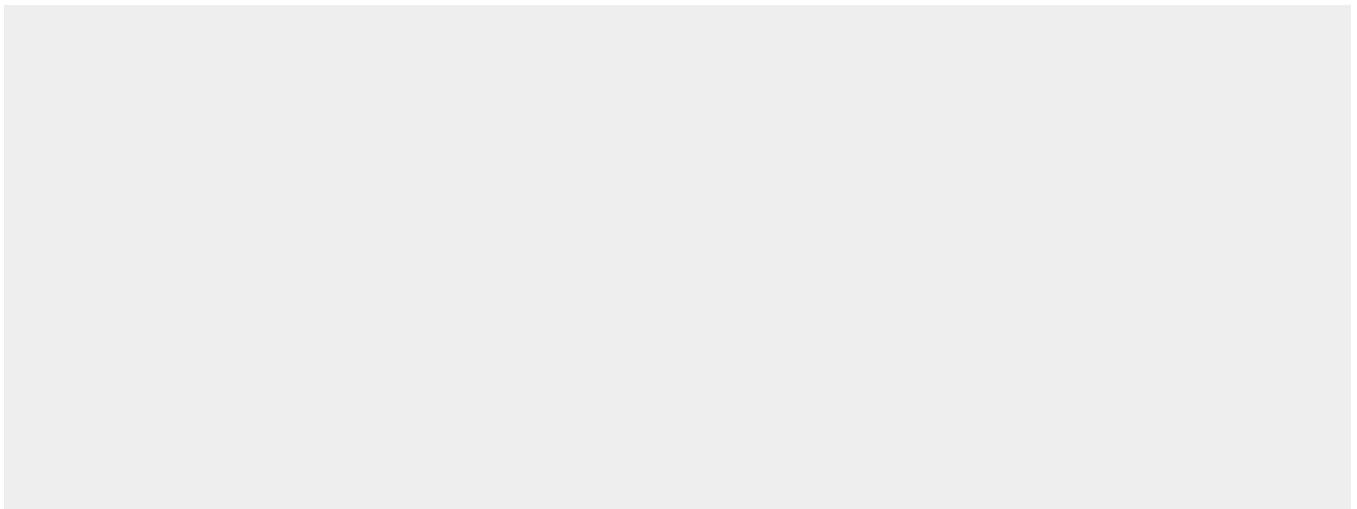
**Tissue Location**

Epithelial tissues and brain.

**ERBB3 Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**ERBB3 Antibody - Images**

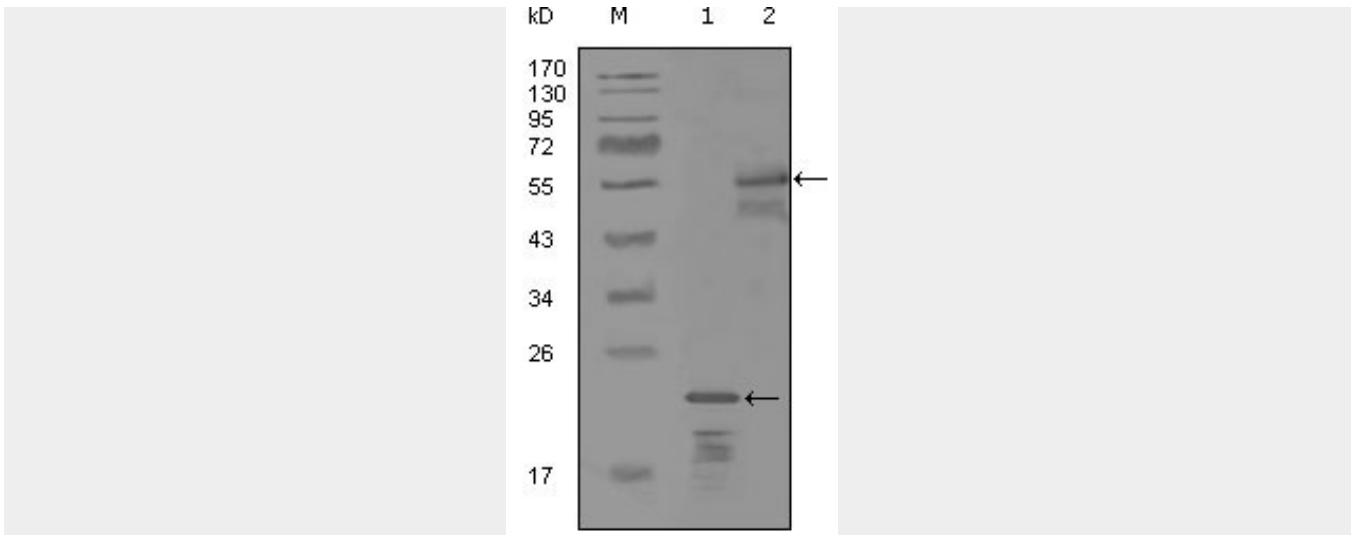


Figure 1: Western blot analysis using ERBB3 mouse mAb against truncated Trx-ERBB3 recombinant protein (1) and MBP-ERBB3 (aa1175-1275) recombinant protein (2).

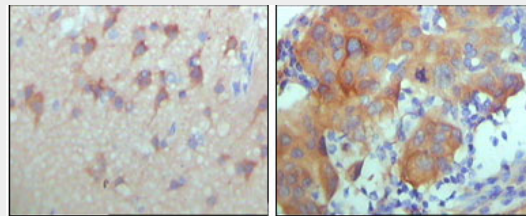


Figure 2: Immunohistochemical analysis of paraffin-embedded human cerebra (left) and breast carcinoma tissue (right), showing cytoplasmic and membrane location with DAB staining using ERBB3 mouse mAb.

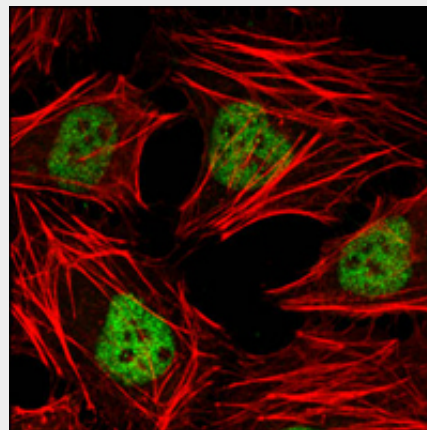


Figure 2: Confocal immunofluorescence analysis of HeLa cells using HDAC3 mouse mAb (green). Red: Actin filaments have been labeled with DY-554 phalloidin.

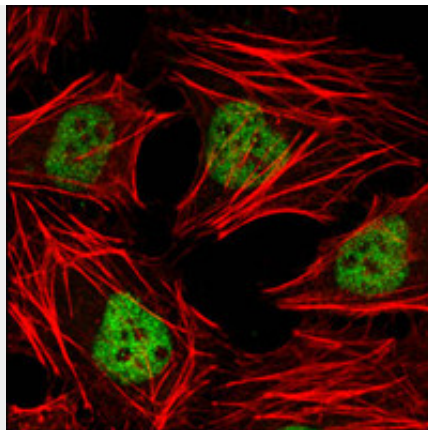


Figure 2: Confocal immunofluorescence analysis of HeLa cells using anti-HDAC3 mAb (green). Red: Actin filaments have been labeled with DY-554 phalloidin.

#### **ERBB3 Antibody - References**

1. Cancer Sci. 2007 Sep;98(9):1498-503.
2. Breast Cancer Res. 2008;10(1):R2.