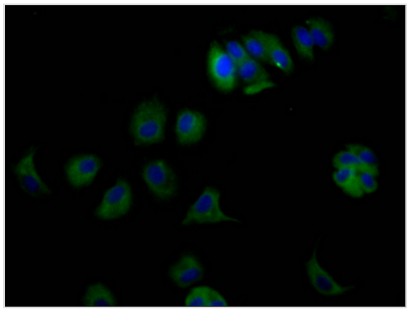
ERBB3 Recombinant Monoclonal Antibody

Product Code	CSB-RA937008A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P21860
Immunogen	A synthesized peptide derived from human ErbB3
Species Reactivity	Human
Tested Applications	ELISA, IF; Recommended dilution: IF:1:20-1:200
Relevance	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:20682778). May also be activated by CSPG5 (PubMed:15358134).
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Cancer; Tags & Cell Markers; Signal transduction
Gene Names	ERBB3
Clone No.	6F6

Image



Immunofluorescence staining of MCF7 Cells with CSB-RA937008A0HU at 1:50, counter-stained with DAPI. The cells were fixed in 4% formaldehyde and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4?. Nuclear DNA was labeled in blue with DAPI. The secondary antibody was FITC-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L).

Description

The ERBB3 recombinant monoclonal antibody is produced through a series of intricate procedures. The first step involves harvesting the ERBB3 monoclonal antibody and sequencing its gene. Then, a vector that carries the ERBB3 monoclonal antibody gene is constructed and transfected into a host cell line for

culturing. During the ERBB3 monoclonal antibody synthesis process, a synthesized peptide derived from human ERBB3 is used as an immunogen. The ERBB3 recombinant monoclonal antibody is then purified using affinity chromatography to ensure its high purity and specificity. Finally, ELISA and IF assays are conducted to confirm the ERBB3 monoclonal antibody's specificity and ability to recognize its intended target. This ERBB3 recombinant monoclonal antibody is only reactive with human ERBB3 protein.

The ERBB3 protein, also known as HER3, plays a critical role in regulating cell growth, differentiation, and survival by binding to various ligands such as neuregulins and heregulins and activating downstream signaling pathways. ERBB3 is a potent activator of the PI3K/Akt pathway, which regulates cell proliferation and survival. ERBB3 also plays a role in regulating apoptosis by activating the anti-apoptotic protein Bcl-2 and inhibiting the pro-apoptotic protein Bad. It is involved in tissue development by regulating cell proliferation and differentiation during embryonic development. ERBB3 is also involved in the development and maintenance of the nervous system and is expressed in various neural cell types. ERBB3 is frequently overexpressed in various types of cancer, including breast cancer, ovarian cancer, and lung cancer.