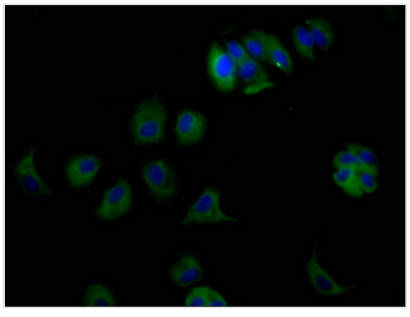
ERBB3 Antibody

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
Accession 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°C. Nuclear DNA was labeled in blue with DAPI. The secondary antibody was FITC-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L).

Description

ERBB3 is a receptor tyrosine kinase (RTK) from the EGFR family that lacks or has impaired kinase activity. Upon ligand binding, ERBB3 forms heterodimers with other members of the family and triggers phosphorylation cascades that promote crucial cellular functions like proliferation, differentiation, and survival.

ERBB3 plays an essential role in the regulation of cancer progression and therapeutic resistance. ERBB3 is frequently co-expressed with other RTKs in cancer cells to activate oncogenic signaling, such as PI3K/Akt pathway, MEK/MAPK pathway, and Jak/Stat pathway, thereby promoting tumorigenesis.

The recombinant ERBB3 antibody production commenced with the obtaining of genes encoding antibody against ERBB3. Antibody genes were obtained by sequencing and screening DNA reversely transcribed from RNA that was extracted from the B cells isolated from immunized animals. These genes were cloned into plasma vectors and subsequently transfected into a mammalian cell line for production. The product is the recombinant ERBB3 antibody. It underwent purification using Affinity-chromatography from the cell culture medium. This recombinant ERBB3 antibody has been validated to detect the ERBB3 protein from Human in the ELISA, IF.