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Product Information

Anti-HER2 Protein A scaffold

Cat. No.: **AFB-16LY**
This product is for research use only and is not intended for diagnostic use.

Product Overview

This Protein A Scaffold molecule binds to a protein of bacterial origin. It does not bind to human HER2 or EGFR. Cross reactivity with other species has not been tested.
Protein A Scaffold, Negative Control is an engineered variant of the Taq Polymerase binder, where 11 amino acid in the scaffold have been changed in order to resemble the Protein A Scaffolds.
The Protein A Scaffold, Negative Control is modified with a unique C-terminal cysteine for directed single-point chemical modification, facilitating labeling to thiol reactive reagents such as various fluorescent dyes.

Specific Activity

Protein A scaffold, Negative Control binds to a protein of bacterial origin. It does not bind to human HER2 or EGFR. Cross reactivity with other species has not been tested.

Source

Display library

Species Reactivity

human

Expression Host

E. coli

Applications

Small animal optical imaging.

Molecular Weight

6.8 kDa

Storage

At +4°C is recommended for lyophilized protein. For reconstituted protein in physiological buffer, short-term storage at +4°C is recommended. For long-term storage, the protein solution should be aliquoted and then stored at -20°C. There is no decrease i

ANTIGEN GENE INFOMATION

Gene Name

ERBB2v-erb-b2 erythroblastic leukemia viral oncogene homolog 2, neuro/glioblastomaderived oncogene homolog (avian) [Homo sapiens]

Official Symbol

ERBB2

Synonyms

NEU; NGL; HER2; TKR1; CD340; HER-2; HER-2/neu; EC 2.7.10.1; C-erbB-2; erbB-2; c-erb B2/neu protein; erbB-2;

herstatin; neuroblastoma/glioblastoma derived oncogene homolog; v-erb-b2 avian erythroblastic leukemia viral oncogene homolog 2 (neuro/glioblastoma derived oncogene homolog); NEU proto-oncogene; MLN 19; CD340 antigen; ERBB2

Gene ID

2064

mRNA Refseq

NM_001005862

Protein Refseq

NP_001005862

MIM

164870

UniProt ID

P04626

Chromosome Location

17q21.1

Pathway

Adherens junction; Calcium signaling pathway; Dorso-ventral axis formation Endometrial cancer; ErbB signaling pathway; Focal adhesion; Non-small cell lung cancer; Pancreatic cancer; Prostate cancer.

Function

Protein tyrosine kinase that is part of several cell surface receptor complexes, but that apparently needs a coreceptor for ligand binding. Essential component of a neuregulin-receptor complex, although neuregulins do not interact with it alone. GP30 is a potential ligand for this receptor. Regulates outgrowth and stabilization of peripheral microtubules (MTs). Upon ERBB2 activation, the MEMO1-RHOA-DIAPH1 signaling pathway elicits the phosphorylation and thus the inhibition of GSK3B at cell membrane. This prevents the phosphorylation of APC and CLASP2, allowing its association with the cell membrane. In turn, membrane-bound APC allows the localization of MACF1 to the cell membrane, which is required for microtubule capture and stabilization.
In the nucleus is involved in transcriptional regulation. Associates with the 5'-TCAAATTC-3' sequence in the PTGS2/COX-2 promoter and activates its transcription. Implicated in transcriptional activation of CDKN1A; the function involves STAT3 and SRC. Involved in the transcription of rRNA genes by RNA Pol I and enhances protein synthesis and cell growth.

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