abcam

Product datasheet

Anti-ErbB2 / HER2 Affibody® Molecule (FITC) ab31891

7 References 1 图像

概述

产品名称	Anti-ErbB2 / HER2 Affibody®分子(FITC)
偶联物	FITC. Ex: 493nm, Em: 528nm
共轭说明	This molecule is conjugated at the unique C-terminal cysteine using a maleimide activated fluorescin reagent. The conjugated Anti-ErbB2 Affibody® molecule is excellent as a one step reagent for fluorescence studies of ErbB2 expression on cells and frozen tissue sections and for flow cytometry.
特异性	This product binds to the extracellular domain of human ErbB 2.
经测试应用	**适用于:** Flow Cyt, IHC-Fr, ICC/IF
种属反应性	**与反应:** Human
免疫原	Recombinant full length protein corresponding to ErbB2/ HER2.
常规说明	This product is a recombinant protein produced in E.coli.

What are Affibody Molecules?

Affibody® affinity ligands are unique research reagents, produced using innovative protein-engineering technologies. They are small, simple proteins composed of a three-helix bundle based on the scaffold of one of the IgG-binding domains of Protein A. Protein A is a surface protein from the bacterium Staphylococcus aureus. This scaffold has excellent features as an affinity ligand and can be designed to bind with high affinity to any given target protein. The domain consists of 58 amino acids, 13 of which are randomized to generate Affibody® libraries with a large number of ligand variants. Thus, the libraries consist of a multitude of protein ligands with an identical backbone and variable surface-binding properties. In function, Affibody® Molecules mimic monoclonal antibodies. Compared to antibodies, the most striking dissimilarity of Affibody® Molecules is the small size. Affibody® Molecules have a molecular weight of 6kDa, compared to the molecular weight of antibodies, which is 150kDa. In spite of its small size, the binding site of Affibody® Molecules is similar to that of an antibody. The advantages of Affibody® Molcules over antibodies are: -their small size -the simple structure of the molecules -its robust physical properties; able to withstand a broad range of analytical conditions, including extreme pH and elevated temperature -its ability to fold correctly intracellularly -the fast and cost effective production in bacteria -the potential to couple Affibody® Molecules in multimeric constructs Affibody® Molecules have highly competitive properties for applications within affinity purification, sample preparation, protein detection and in vitro diagnostics.

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term.
存储溶液	pH: 7.20 Preservative: 0.02% Sodium azide Constituents: 0.328% Sodium phosphate, 0.87% Sodium chloride
纯化说明	The purity of this product is >98% as determined by RP-HPLC analysis.
功能	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.
组织特异性	Expressed in a variety of tumor tissues including primary breast tumors and tumors from small bowel, esophagus, kidney and mouth.
疾病相关	Hereditary diffuse gastric cancer Glioma Ovarian cancer Lung cancer Gastric cancer Chromosomal aberrations involving ERBB2 may be a cause gastric cancer. Deletions within 17q12 region producing fusion transcripts with CDK12, leading to CDK12-ERBB2 fusion leading to truncated CDK12 protein not in-frame with ERBB2.
序列相似性	Belongs to the protein kinase superfamily. Tyr protein kinase family. EGF receptor subfamily. Contains 1 protein kinase domain.
翻译后修饰	Autophosphorylated. Autophosphorylation occurs in trans, i.e. one subunit of the dimeric receptor phosphorylates tyrosine residues on the other subunit (Probable). Ligand-binding increases phosphorylation on tyrosine residues (PubMed:27134172). Signaling via SEMA4C promotes phosphorylation at Tyr-1248 (PubMed:17554007). Dephosphorylated by PTPN12 (PubMed:27134172).
细胞定位	Cytoplasm. Nucleus and Cell membrane. Cytoplasm, perinuclear region. Nucleus. Translocation to the nucleus requires endocytosis, probably endosomal sorting and is mediated by importin beta-1/KPNB1.

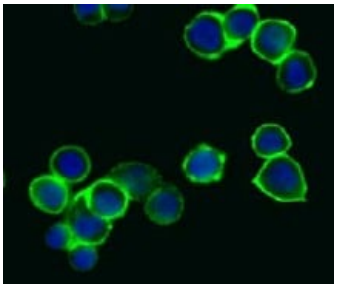
应用

The Abpromise guarantee	**Abpromise™承诺保证使用**ab31891**于以下的**经测试应用

“应用说明”**部分 下显示的**仅为**推荐的起始稀释度**;实际**最佳的稀释度**/浓**度应由使用者检定。**

应用	Ab评论	说明
Flow Cyt		Use at an assay dependent concentration.
IHC-Fr		Use at an assay dependent concentration. Staining of paraffin embedded tissues is not recommended. AFFIBODY® MOLECULES ARE PROTOCOL SPECIFIC. PLEASE REFER TO THE "PROTOCOLS" LINKS BELOW.
ICC/IF		Use at an assay dependent concentration.

图片



Immunocytochemistry/ Immunofluorescence - Anti-ErbB2 / HER2 Affibody® Molecule (FITC) (ab31891)

Human mammary gland cell line SK-BR3 cells were stained with fluorescin conjugated Anti-ErbB2 / HER2 Affibody® molecule (ab31891). The staining was localized to the membrane of the ErbB 2 expressing human mammary gland cells. Nuclei were counter stained with DAPI (blue fluorescence). The SK-BR3 cells were stained for 30 minutes at a concentration of 1-5ug Affibody® molecule/ml.

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