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Product datasheet

Anti-EGFR (phospho Y1173) antibody ab5652

★★★★★ 1 Abreviews 11 References 4 图像

概述

产品名称 Anti-EGFR (phospho Y1173)抗体

描述 兔多克隆抗体to EGFR (phospho Y1173)

宿主 Rabbit

经测试应用 **适用于:** WB, ICC, IHC-P **种属反应性 与反应:** Mouse, Human

免疫原 Synthetic peptide corresponding to Human EGFR (phospho Y1173).

阳性对照 WB: NIH/3T3 cells. IHC-P: Human hepatocellular carcinoma, human lung adenocarcinoma. ICC:

HeLa cells.

常规说明

The Life Science industry has been in the grips of a reproducibility crisis for a number of years.

Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

性能

形式 Liquid

存放说明 Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

存储溶液 pH: 7.30

Preservative: 0.05% Sodium azide

Constituents: PBS, 50% Glycerol, 0.1% BSA

纯**度** Immunogen affinity purified

纯**化说明** The antibody has been negatively preadsorbed using (i) a non phosphopeptide corresponding to

the site of phosphorylation to remove antibody that is reactive with non-phosphorylated epidermal growth factor receptor (EGFR), and (ii) a generic tyrosine phosphorylated peptide to remove antibody that is reactive with phosphotyrosine, irrespective of the sequence. The final product is generated by affinity chromatography using an EGFR-derived peptide that is phosphorylated at

tyrosine 1173.

克隆 多克隆

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同种型 ΙgG

应用

Abpromise™承诺保证使用ab5652于以下的经测试应用 The Abpromise guarantee

"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
WB	*****(1)	1/1000. Detects a band of approximately 185 kDa.
ICC		1/100 - 1/500.
IHC-P		1/10 - 1/100.

靶标

功能

Receptor tyrosine kinase binding ligands of the EGF family and activating several signaling cascades to convert extracellular cues into appropriate cellular responses. Known ligands include EGF, TGFA/TGF-alpha, amphiregulin, epigen/EPGN, BTC/betacellulin, epiregulin/EREG and HBEGF/heparin-binding EGF. Ligand binding triggers receptor homo- and/or heterodimerization and autophosphorylation on key cytoplasmic residues. The phosphorylated receptor recruits adapter proteins like GRB2 which in turn activates complex downstream signaling cascades. Activates at least 4 major downstream signaling cascades including the RAS-RAF-MEK-ERK, PI3 kinase-AKT, PLCgamma-PKC and STATs modules. May also activate the NF-kappa-B signaling cascade. Also directly phosphorylates other proteins like RGS16, activating its GTPase activity and probably coupling the EGF receptor signaling to the G protein-coupled receptor signaling. Also phosphorylates MUC1 and increases its interaction with SRC and CTNNB1/betacatenin.

Isoform 2 may act as an antagonist of EGF action.

Ubiquitously expressed. Isoform 2 is also expressed in ovarian cancers.

疾病相关 Lung cancer Inflammatory skin and bowel disease, neonatal, 2

Belongs to the protein kinase superfamily. Tyr protein kinase family. EGF receptor subfamily.

Contains 1 protein kinase domain.

翻译后修饰 Phosphorylation at Ser-695 is partial and occurs only if Thr-693 is phosphorylated.

> Phosphorylation at Thr-678 and Thr-693 by PRKD1 inhibits EGF-induced MAPK8/JNK1 activation. Dephosphorylation by PTPRJ prevents endocytosis and stabilizes the receptor at the plasma membrane. Autophosphorylation at Tyr-1197 is stimulated by methylation at Arg-1199 and enhances interaction with PTPN6. Autophosphorylation at Tyr-1092 and/or Tyr-1110 recruits

STAT3. Dephosphorylated by PTPN1 and PTPN2.

Monoubiquitinated and polyubiquitinated upon EGF stimulation; which does not affect tyrosine kinase activity or signaling capacity but may play a role in lysosomal targeting. Polyubiquitin linkage is mainly through 'Lys-63', but linkage through 'Lys-48', 'Lys-11' and 'Lys-29' also occurs. Deubiquitination by OTUD7B prevents degradation. Ubiquitinated by RNF115 and RNF126. Methylated. Methylation at Arg-1199 by PRMT5 stimulates phosphorylation at Tyr-1197.

Secreted and Cell membrane. Endoplasmic reticulum membrane. Golgi apparatus membrane.

Nucleus membrane. Endosome. Endosome membrane. Nucleus. In response to EGF,

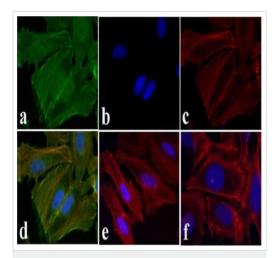
组织特异性

序列相似性

细胞定位

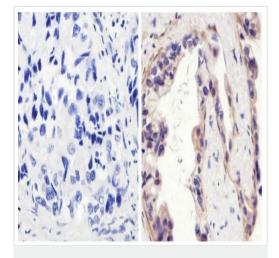
translocated from the cell membrane to the nucleus via Golgi and ER. Endocytosed upon activation by ligand. Colocalized with GPER1 in the nucleus of estrogen agonist-induced cancer-associated fibroblasts (CAF).

图片



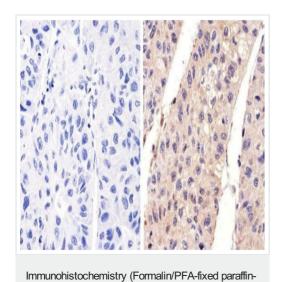
Immunocytochemistry - Anti-EGFR (phospho Y1173) antibody (ab5652)

HeLa cells stained for EGFR (green) using ab5652 at 2 µg/mL in ICC/IF. Followed by Alexa Fluor 488 Goat Anti-Rabbit IgG Secondary Antibody at 1/400 dilution for 30 minutes at room temperature (Panel a). Nuclei (Panel b: blue) were stained with SlowFade® Gold Antifade Mountant with DAPI. F-actin (Panel c: red) was stained with Alexa Fluor 594 Phalloidin. Panel d is a merged image showing cytoplasmic localization of EGFR (pY1173). Panel e shows untreated cells. Panel f shows no primary antibody control.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-EGFR (phospho Y1173) antibody (ab5652)

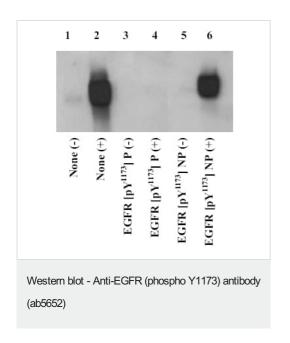
Paraffin embedded human lung adenocarcinoma tissue stained for EGFR using ab5652 at 1/50 dilution in immunohistochemical analysis.



embedded sections) - Anti-EGFR (phospho Y1173)

antibody (ab5652)

Paraffin embedded human hepatocellular carcinoma tissue stained for EGFR using ab5652 at 1/20 dilution in immunohistochemical analysis.



Cell extracts prepared from NIH3T3 cells expressing EGFR were starved for 30 hours, then stimulated for 10 minutes with 30 ng/mL EGF (+), or left unstimulated (-), then resolved by SDS-PAGE on a 6% Tris-glycine gel, and transferred to nitrocellulose. Membranes were incubated with 0.50 µg/mL ab5652 antibody, following prior incubation in the absence (lanes 1& 2), or presence of the peptide immunogen (lanes 3 & 4), or the nonphosphopeptide corresponding to the EGFR phosphopeptide (lanes 5 & 6). After washing, membranes were incubated with goat F(ab')2 anti-rabbit lgG alkaline phosphatase and bands were detected using the Tropix WesternStar detection method. The data show that only the phosphopeptide corresponding to this site blocks the antibody signal, demonstrating the specificity of the ab5652 antibody for this phosphorylated residue. Cell extracts prepared from NIH3T3 cells expressing EGFR were starved for 30 hours, then stimulate

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