

Anti-EGFR antibody [ICR10] ab231

★★★★★ [7 Abreviews](#) [29 References](#) [3 图像](#)

概述

产品名称	Anti-EGFR抗体[ICR10]
描述	大鼠单克隆抗体[ICR10] to EGFR
宿主	Rat
经测试应用	适用于: Inhibition Assay, Flow Cyt, ICC/IF 不适用于: WB
种属反应性	与反应: Human
免疫原	Full length protein corresponding to EGFR. Extracellular domain of Human EGF-receptor from head and neck carcinoma
表位	ICR10 binds to epitope B, and has an affinity of 6.7×10^{-9} M.
阳性对照	Flow Cyt: A431 cells. WB: HN5 cell lysate.
常规说明	<p>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.</p> <p>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</p>

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 or -80°C. Avoid freeze / thaw cycle.
存储溶液	Preservative: 0.09% Sodium azide Constituent: PBS
纯度	Ion Exchange Chromatography
纯化说明	Purified IgG prepared by ion exchange chromatography.
克隆	单克隆
克隆编号	ICR10
骨髓瘤	unknown

同种型	IgG2a
轻链类型	unknown

应用

The Abpromise guarantee **Abpromise™承诺保证使用ab231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
Inhibition Assay		Use at an assay dependent concentration. See ELISA Abreview.
Flow Cyt	★★★★★ (1)	1/50 - 1/100. ab18450 - Rat monoclonal IgG2a, is suitable for use as an isotype control with this antibody.
ICC/IF		Use a concentration of 5 µg/ml.

应用说明 Is unsuitable for WB.

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/beta-catenin.

Isoform 2 may act as an antagonist of EGF action.

组织特异性 Ubiquitously expressed. Isoform 2 is also expressed in ovarian cancers.

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

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.

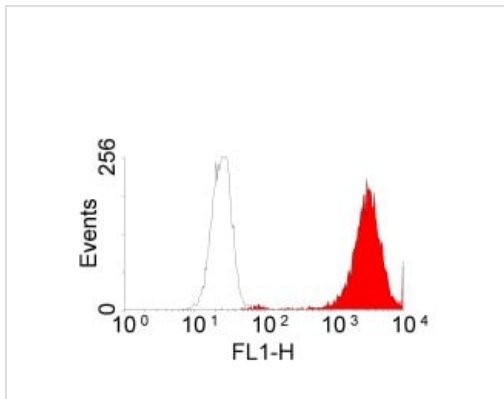
Monoubiquitinated and polyubiquitinated upon EGF stimulation; which does not affect tyrosine kinase activity or signaling capacity but may play a role in lysosomal targeting. Polyubiquitin

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.

细胞定位

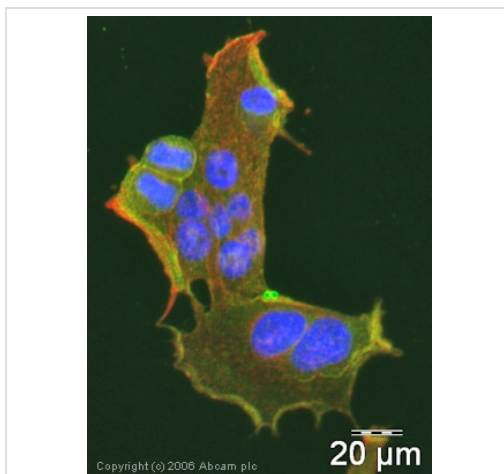
Secreted and Cell membrane. Endoplasmic reticulum membrane. Golgi apparatus membrane. Nucleus membrane. Endosome. Endosome membrane. Nucleus. In response to EGF, translocated from the cell membrane to the nucleus via Golgi and ER. Endocytosed upon activation by ligand. Colocalized with GPER1 in the nucleus of estrogen agonist-induced cancer-associated fibroblasts (CAF).

图片



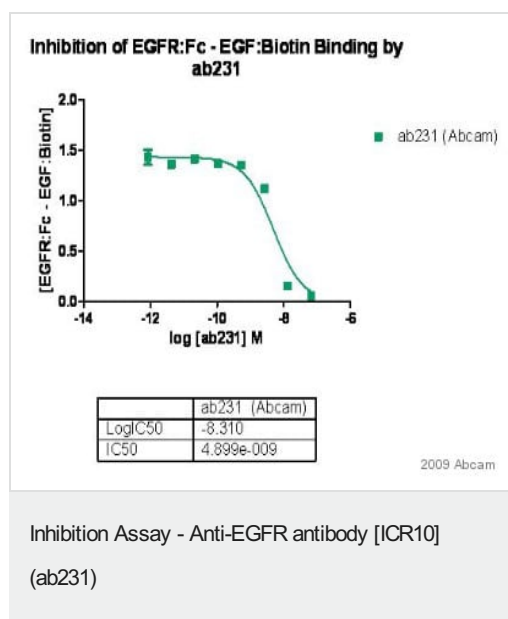
Staining of A431 cells with ab231 visualised with F(ab')₂ rabbit anti-rat FITC conjugated secondary.

Flow Cytometry - Anti-EGFR antibody [ICR10]
(ab231)



ICC/IF image of ab231 stained human HeLa cells. The cells were methanol fixed (5 min) and incubated with the antibody (ab231, 5μg/ml) for 1h at room temperature. The secondary antibody (green) was Alexa Fluor® 488 donkey anti-rat IgG (H+L) used at a 1/1000 dilution for 1h. Image-iT™ FX Signal Enhancer was used as the primary blocking agent, 5% BSA (in TBS-T) was used for all other blocking steps. DAPI was used to stain the cell nuclei (blue). Alexa Fluor® 594 WGA was used to label plasma membranes (red).

Immunocytochemistry/ Immunofluorescence - Anti-EGFR antibody [ICR10] (ab231)



ab231 used undiluted in inhibition assay against human recombinant protein EGFR1:Fc to inhibit binding to EGF:Biotin. The primary incubated with sample for 1 hour. The antibody inhibits the binding of biotinylated EGF to coated EGFR:Fc with an IC₅₀ ~ 5 nM.

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