

## Mouse EGFR ELISA Kit ab201275

**重组** SimpleStep ELISA

[1 References](#) [7 图像](#)

### 概述

**产品名称** 小鼠EGFR ELISA试剂盒

**检测方法** Colorimetric

**精确度** 批次内

样品	n	Mean	SD	CV%
Serum	5			1.9%

批次间

样品	n	Mean	SD	CV%
Serum	3			8.5%

**样品类型** Cell culture supernatant, Serum, Hep Plasma, EDTA Plasma, Cit plasma

**检测类型** Sandwich (quantitative)

**灵敏度** 60 pg/ml

**范围** 1.875 ng/ml - 120 ng/ml

**回收率** 特定样本回收率

样品类型	平均%	范围
Serum	102	97.1% - 106.7%
Cell culture media	116.1	114.3% - 119.3%
Hep Plasma	96.9	95.2% - 99.7%
EDTA Plasma	101.1	97.5% - 106%
Cit plasma	100.5	96.2% - 105%

**检测时间** 1h 30m

**实验步骤** One step assay

## 种属反应性

**与反应:** Mouse

**不与反应:** Goat, Cow, Pig

## 产品概述

Mouse EGFR ELISA Kit (ab201275) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of EGFR protein in cell culture supernatant, cit plasma, edta plasma, hep plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse EGFR with 60 pg/ml sensitivity.

SimpleStep ELISA® technology employs capture antibodies conjugated to an affinity tag that is recognized by the monoclonal antibody used to coat our SimpleStep ELISA® plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA® protocol summary in the image section for further details. Our SimpleStep ELISA® technology provides several benefits:

- Single-wash protocol reduces assay time to 90 minutes or less
- High sensitivity, specificity and reproducibility from superior antibodies
- Fully validated in biological samples
- 96-wells plate breakable into 12 x 8 wells strips

A 384-well SimpleStep ELISA® microplate (**ab203359**) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

## 说明

EGFR is a receptor tyrosine kinase that binds ligands of the EGF family and activate 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. The ligand binding triggers receptor homo- and/or hetero-dimerization and autophosphorylation on key cytoplasmic residues. The phosphorylated receptor recruits adapter proteins like GRB2 which in turn activates complex downstream signaling cascades. EGFR activates at least 4 major downstream signaling cascades including the RAS-RAF-MEK-ERK, PI3 kinase-AKT, PLC gamma-PKC and STATs modules. EGFR may also activate the NF-kappa-B signaling cascade. EGFR 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. EGFR also phosphorylates MUC1 and increases its interaction with SRC and CTNNB1/beta-catenin. Endocytosis and inhibition of the activated EGFR by phosphatases like PTPRJ and PTPRK constitute immediate regulatory mechanisms. Upon EGF-binding EGFR phosphorylates EPS15 that regulates EGFR endocytosis and activity. Moreover, inducible feedback inhibitors including LRIG1, SOCS4, SOCS5 and ERFF1 constitute alternative regulatory mechanisms for the EGFR signaling.

## 平台

Microplate (12 x 8 well strips)

## 性能

### 存放说明

Store at +4°C. Please refer to protocols.

组件	1 x 96 tests
10X Mouse EGFR Capture Antibody	1 x 600µl

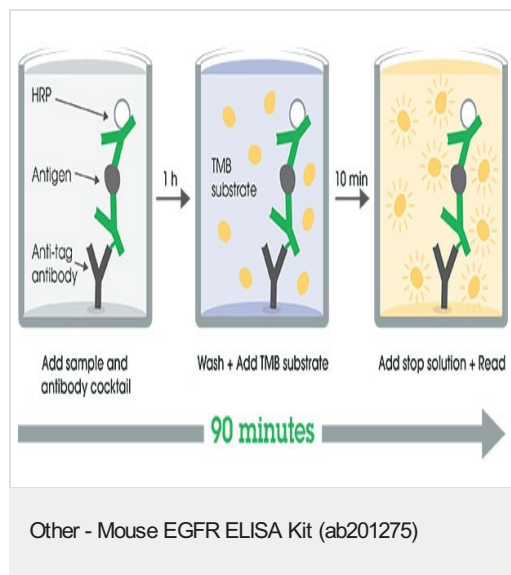
组件	1 x 96 tests
10X Mouse EGFR Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent CP	1 x 6ml
Mouse EGFR Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent 25BS	1 x 20ml
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

<b>功能</b>	<p>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.</p> <p>Isoform 2 may act as an antagonist of EGF action.</p>
<b>组织特异性</b>	Ubiquitously expressed. Isoform 2 is also expressed in ovarian cancers.
<b>疾病相关</b>	<p>Lung cancer</p> <p>Inflammatory skin and bowel disease, neonatal, 2</p>
<b>序列相似性</b>	<p>Belongs to the protein kinase superfamily. Tyr protein kinase family. EGF receptor subfamily. Contains 1 protein kinase domain.</p>
<b>翻译后修饰</b>	<p>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.</p> <p>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.</p>

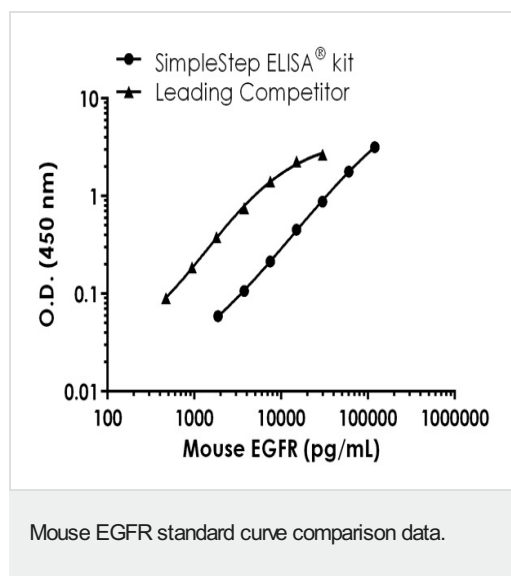
## 细胞定位

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).

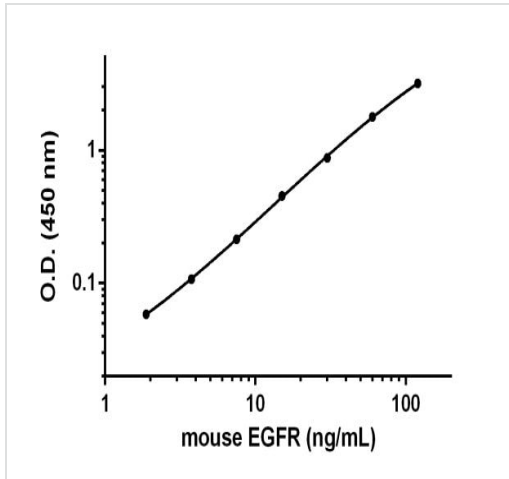
## 图片



SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.

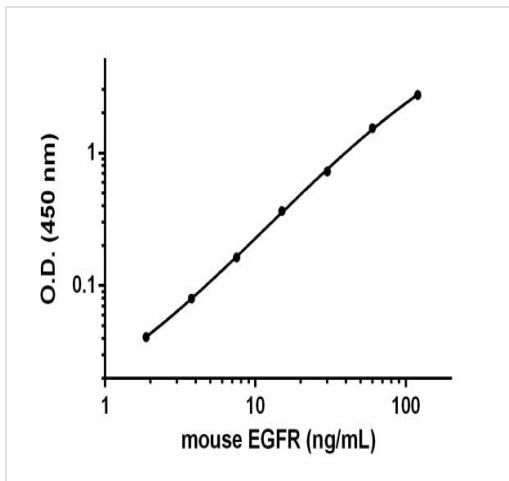


Standard curve comparison between mouse EGFR SimpleStep ELISA<sup>®</sup> kit and traditional ELISA kit from leading competitor. SimpleStep ELISA kit shows comparable sensitivity.



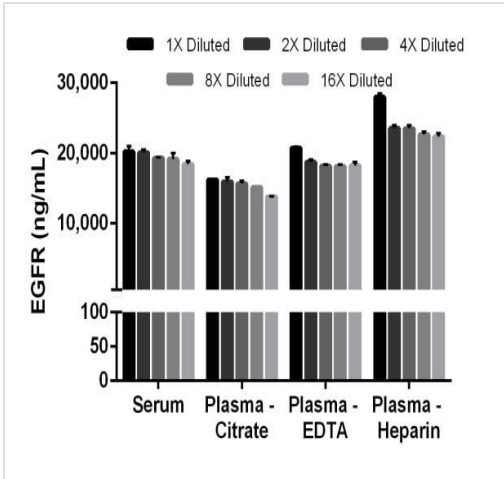
Background-subtracted data values (mean +/- SD) are graphed.

Example of EGFR standard curve prepared in Sample Diluent NS.



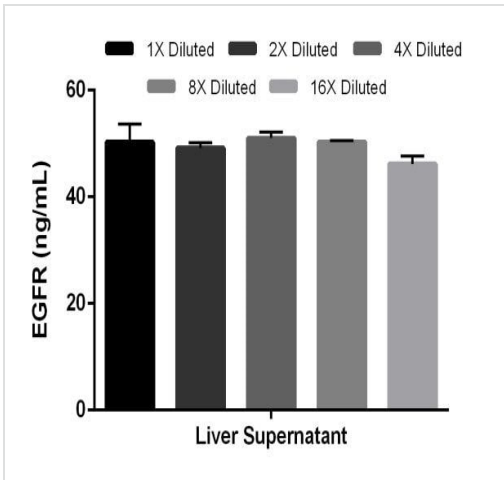
Background-subtracted data values (mean +/- SD) are graphed.

Example of EGFR standard curve prepared in Sample Diluent 25BS.



Interpolated concentrations of EGFR in mouse serum and plasma.

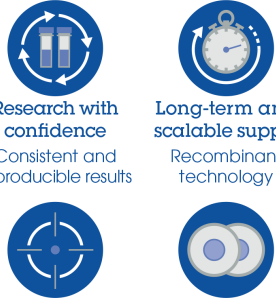
The concentrations of EGFR were measured in duplicates, interpolated from the EGFR standard curve and corrected for sample dilution. Note that 1X Diluted serum and plasma sample were 200X pre-diluted samples, The interpolated, dilution factor-corrected values are plotted (mean +/- SD, n=2).



Interpolated concentrations of EGFR in liver cell culture supernatant samples.

The concentrations of EGFR were measured in duplicates, interpolated from the EGFR standard curve and corrected for sample dilution. The interpolated, dilution factor-corrected values are plotted (mean +/- SD, n=2).

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Sandwich ELISA - Mouse EGFR ELISA Kit  
(ab201275)

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**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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