

Human soluble EGFR ELISA Kit ab269558

リコンビナント SimpleStep ELISA

1 References [画像数 8](#)

製品の概要

製品名 Human soluble EGFR ELISA Kit

検出方法 Colorimetric

再現性 Intra-Assay (同時再現性)

サンプル	N	平均値	SD	CV%
Serum	3			2.4%

Inter-Assay (日差再現性)

サンプル	N	平均値	SD	CV%
Serum	8			3.1%

サンプルの種類 Cell culture supernatant, Serum, Hep Plasma, EDTA Plasma, Cit plasma

アッセイタイプ Sandwich (quantitative)

検出感度 36.63 pg/ml

検出範囲 109.375 pg/ml - 7000 pg/ml

添加回収試験 特定サンプルでの回収試験

サンプルの種類	平均 %	測定範囲
Cell culture supernatant	95	85% - 101%
Serum	96	91% - 100%
Hep Plasma	94	89% - 98%
EDTA Plasma	96	94% - 97%
Cit plasma	98	91% - 105%

全工程の試験時間 1h 30m

ステップ One step assay

種交差性

交差種: Human

製品の概要

Human soluble EGFR ELISA Kit (ab269558) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of soluble EGFR protein in cell culture supernatant, edta plasma, hep plasma, serum, and cit plasma. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human soluble EGFR with 36.63 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.

特記事項

Soluble epidermal growth factor receptor (sEGFR) is the extracellular domain of the EGFR cell-surface receptor protein and is created either from alternative mRNA transcripts or from proteolytic cleavage of membrane-bound EGFR. sEGFR can compete with the full-length receptor, thus interfering with signaling cascades initiated through ligand binding. While its overall role is not fully understood, there is much consideration for using it as a diagnostic biomarker of cancerous tumors.

試験プラットフォーム

Pre-coated microplate (12 x 8 well strips)

製品の特性

保存方法

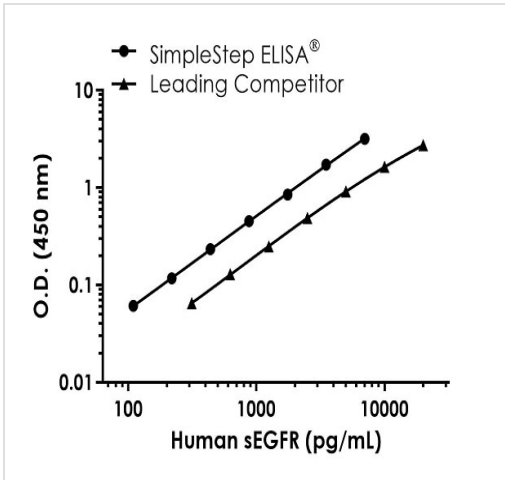
Store at +4°C. Please refer to protocols.

内容	1 x 96 tests
10X Human soluble EGFR Capture Antibody	1 x 600µl
10X Human soluble EGFR Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent 5BI	1 x 6ml
Human soluble EGFR Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit

内容	1 x 96 tests
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

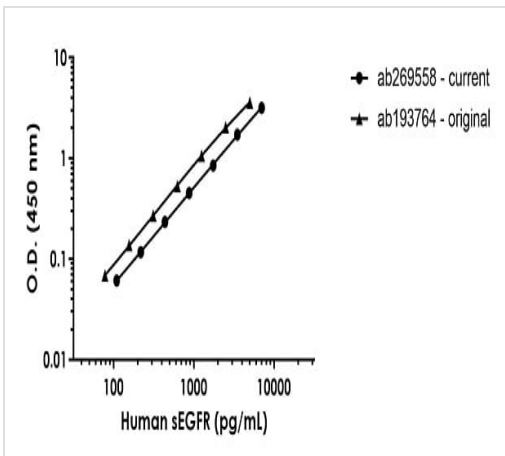
機能	<p>Receptor tyrosine kinase binding ligands of the EGF family and activating several signaling cascades to convert extracellular cues into appropriate cellular responses. Known ligands include EGF, TGFA/TGF-alpha, amphiregulin, epigen/EPGN, BTC/betacellulin, epiregulin/EREG and HBEGF/heparin-binding 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>
組織特異性	Ubiquitously expressed. Isoform 2 is also expressed in ovarian cancers.
関連疾患	<p>Lung cancer</p> <p>Inflammatory skin and bowel disease, neonatal, 2</p>
配列類似性	<p>Belongs to the protein kinase superfamily. Tyr protein kinase family. EGF receptor subfamily.</p> <p>Contains 1 protein kinase domain.</p>
翻訳後修飾	<p>Phosphorylation at Ser-695 is partial and occurs only if Thr-693 is phosphorylated.</p> <p>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.</p> <p>Methylated. Methylation at Arg-1199 by PRMT5 stimulates phosphorylation at Tyr-1197.</p>
細胞内局在	<p>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).</p>

画像



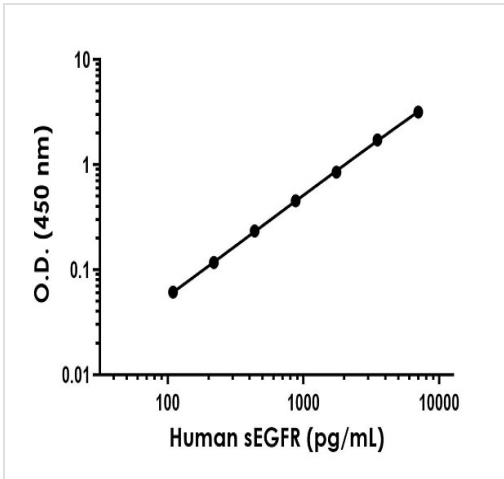
Standard Curve comparison between human soluble EGFR SimpleStep ELISA kit and traditional ELISA kit from leading competitor. SimpleStep ELISA kit shows increased sensitivity.

Human soluble EGFR standard curve comparison



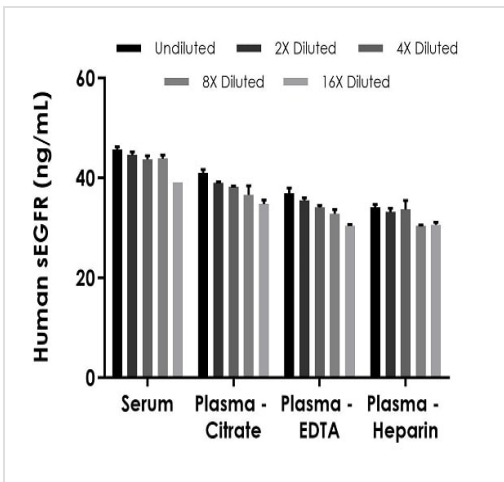
Standard Curve comparison between the original human MMP3 SimpleStep ELISA kit ([ab193764](#)) and current human MMP3 SimpleStep ELISA kit ([ab269558](#)).

Human soluble EGFR standard curve comparison



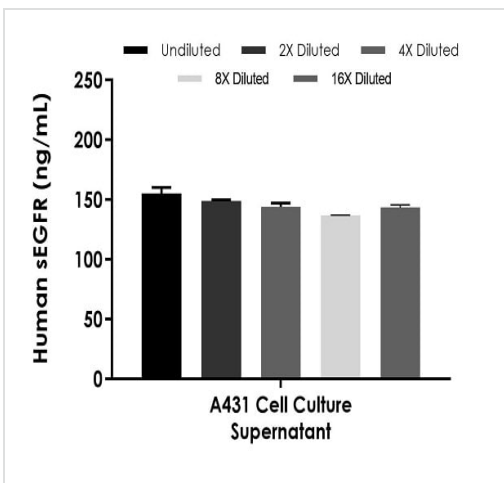
Example of human soluble EGFR standard curve in Sample Diluent NS.

The soluble EGFR standard curve was prepared as described in Section 10. Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.



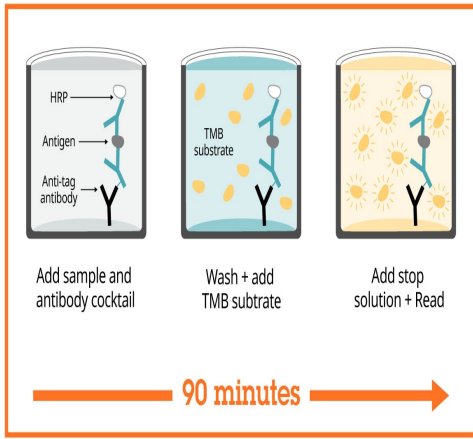
Interpolated concentrations of native soluble EGFR in human serum and plasma samples.

The concentrations of soluble EGFR were measured in duplicates, interpolated from the soluble EGFR standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 10%, plasma (citrate) 10%, plasma (EDTA) 10%, and plasma (heparin) 10%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean soluble EGFR concentration was determined to be 43 ng/mL in serum, 38 ng/mL in plasma (citrate), 34 ng/mL in plasma (EDTA), and 32 ng/mL in plasma (heparin).



Interpolated concentrations of native soluble EGFR in human A431 cell culture supernatant samples.

The concentrations of soluble EGFR were measured in duplicates, interpolated from the soluble EGFR standard curves and corrected for sample dilution. Undiluted samples are as follows: A431 cell culture supernatant 2.5%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean soluble EGFR concentration was determined to be 146 ng/mL in A431 cell culture supernatant.



Sandwich ELISA - Human soluble EGFR ELISA Kit
(ab269558)

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.

Powered by recombinant antibodies

- Research with confidence**
Consistent and reproducible results
- Long-term and scalable supply**
Recombinant technology
- Success from the first experiment**
Confirmed specificity
- Ethical standards compliant**
Animal-free production

Sandwich ELISA - Human soluble EGFR ELISA Kit
(ab269558)

To learn more about the advantages of recombinant antibodies see [here](#).

Get more done with SimpleStep ELISA

- Easy to use**
Single-wash 90-minute protocol
- Flexible**
Matched antibody pairs available
- Precision antibodies**
High sensitivity, specificity and reproducibility
- Scalable**
Now in 10-pack and 384-well formats

Sandwich ELISA - Human soluble EGFR ELISA Kit
(ab269558)

To learn more about the advantages of SimpleStep ELISA[®] kits see [here](#).

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