Anti-human soluble EGFR/p110

20160323BB

FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	**102-PA12S**
Size:	100 µg
Lot. No.:	According to product label
Country of origin:	Germany

Preparation: Purified from sera of rabbits immunized with highly pure recombinant human soluble EGFR/p110 C terminal end (Phe638 – His705) produced in E. Coli.

Target Background

Synonyms:	Epidermal growth factor receptor, Proto-oncogene c-ErbB-1

The epidermal growth factor receptor (EGFR) subfamily of receptor tyrosine kinases comprises four members: EGFR (also known as HER1, ErbB1 or ErbB), ErbB2 (Neu, HER-2), ErbB3 (HER-3), and ErbB4 (HER-4). All family members are type I transmembrane glycoprotein that has an extracellular domain which contains two cysteine-rich domains separated by a spacer region that is involved in ligand-binding, and a cytoplasmic domain which has a membrane-proximal tyrosine kinase domain and a C-terminal tail with multiple tyrosine autophosphorylation sites. Previously the cloning and expression of a 3 kb alternative EGFR transcript which encodes a 110 kDa form of the receptor (sEGFR/p110) was reported. This receptor isoform is identical to the extracellular region of the full-length 170 kDa EGFR through amino acid 603; in addition, p110 sEGFR contains 78 unique carboxy-terminal amino acids. The sEGFR/p110 is associated with the cell membrane and can be released, allowing detection in human serum and plasma. The existence of this circulating sEGFR isoform stimulated investigation of its role as a potential circulating biomarker. Several studies suggest that alterations in sEGFR levels may be useful in cancer diagnosis and in monitoring disease recurrence and outcome, especially in patients with ovarian or breast cancer. The new polyclonal antibody may be useful in determining the expression, localization, and function of sEGFR/p110, and importantly will allow to distinguish between the expression of this receptor isoform and full length EGF receptor.

References

1. Reiter JL and Maihle NJ, Ann. N. Y. Acad. Sci. 2003, 995, 39–47.
2. Baron AT et al, Cancer Epidemiol. Biomark. Prev. 2003, 12, 103–113.
3. Lafky JM et al, Biochim. Biophys. Acta 2008, 1785, 232–265.
4. Baron AT et al, Cancer Epidemiol. Biomark. Prev. 2005, 14, 306–318.
5. Müller V et al, Anticancer Res. 2006, 26, 1479–1487.
6. Asgeirsson KS et al, Breast Cancer Res. 2007, 9, doi:10.1186/bcr1788.

Database References Antigen

Protein RefSeq:	NP_005219.2
Uniprot ID:	P00533
mRNA RefSeq:	NM_005228.3

Product Specifications

Species reactivity	human
Clone/Ab feature	Rabbit IgG
Cross reactivity	ND
Host	rabbit
Clonality	polyclonal
Purification	Protein A purified
Immunogen	Recombinant human sEGFR/p110 (C terminus)
Formulation	lyophilized
Buffer	PBS

Stability: The lyophilized antibody is stable at room temperature for up to 1 month. The reconstituted antibody is stable for at least two weeks at 2-8°C. Frozen aliquots are stable for at least 6 months when stored at -20°C.

Reconstitution: Centrifuge vial prior to opening. Reconstitute in sterile water to a concentration of 0.1-1.0 mg/ml.

AVOID REPEATED FREEZE AND THAW CYCLES!

Applications

Western Blot:	Use 5 µg/ml
IF/IHC:	IHC (human foreskin): 5 µg/ml

NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!

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Handling/Applications

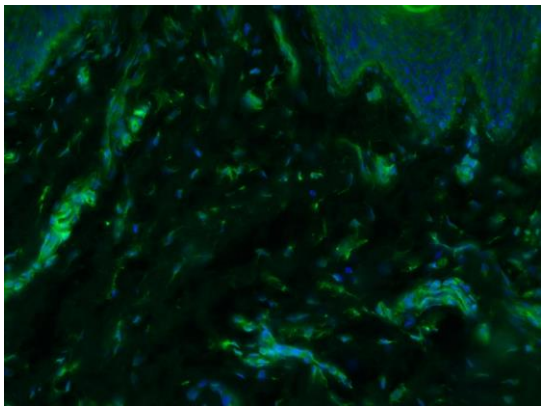

Figure 1: Immunofluorescence staining of human foreskin (cryo-section of PFA-fixed tissue) with anti-human sEGFR/p110 (green; 5µg/ml). Nuclei counter-stained with Dapi (blue). Specimen provided by Prof. Dr. J. Wilting and Dr. K. Buttler, Goettingen.

The experiment was performed by the research group of Prof. Dr. J. Wilting, University Göttingen, Germany.