Leinco Technologies, Inc.
excellence in early discovery research™

Anti-Human EGFR [Clone EGFR.1] — Purified *in vivo* GOLD™ Functional Grade

Monoclonal Antibody

Product Information

Product No.:	E336
Clone:	EGFR.1
RRID:	AB_2737491
Isotype:	Mouse Mouse IgG2b κ
Storage:	Sterile 2-8°C

Product Description

Specificity:
Clone EGFR.1 recognizes the human EGFR.

Background:
EGFR is a 170 kD transmembrane glycoprotein that is part of the ErbB family of receptors within the protein kinase superfamily. EGFR is one of four closely related receptor tyrosine kinases: EGFR (ErbB-1), HER2/c-neu (ErbB-2), Her 3 (ErbB-3) and Her 4 (ErbB-4). EGFR is essential for various processes including controlling cell growth and differentiation and ductal development of the mammary glands. Ligand binding induces dimerization and autophosphorylation. It consists of a glycosylated extracellular domain which binds to EGF and an intracellular domain with tyrosine-kinase activity necessary for signal transduction. TGFα, vaccinia virus growth factor, and related growth factors can also bind to and signal through EGFR. Abnormal EGFR signaling has been implicated in inflammatory diseases such as psoriasis, eczema and atherosclerosis. Alzheimer's disease is linked with poor signaling of the EGFR and other receptor tyrosine kinases. Furthermore, over-expression of the EGFR is linked with the growth of various tumors. EGFR has been identified as an oncogene, a gene which in certain circumstances can transform a cell into a tumor cell, which has led to the therapeutic development of anticancer EGFR inhibitors. EGFR is a well-established target for both mAbs and specific tyrosine kinase inhibitors.

Known Reactivity Species:
Human

Format:
in vivo GOLD™, Purified in vivo Functional Grade

Immunogen:
A431 cultured cells

Products are for research use only. Not for use in diagnostic or therapeutic procedures.

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Formulation
This monoclonal antibody is aseptically packaged and formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4 with no carrier protein, potassium, calcium or preservatives added. Due to inherent biochemical properties of antibodies, certain products may be prone to precipitation over time. Precipitation may be removed by aseptic centrifugation and/or filtration.

Purity
≥95% monomer by analytical SEC, >95% by SDS Page

Endotoxin
< 1.0 EU/mg as determined by the LAL method

Storage and Stability
Functional grade preclinical antibodies may be stored sterile as received at 2-8°C for up to one month. For longer term storage, aseptically aliquot in working volumes without diluting and store at ≤ -70°C. **Avoid Repeated Freeze Thaw Cycles.**

Product Preparation
Functional grade preclinical antibodies are manufactured in an animal free facility using *in vitro* cell culture techniques and are purified by a multi-step process including the use of protein A or G to assure extremely low levels of endotoxins, leachable protein A or aggregates.

Country of Origin
USA

References
1. Berger, SM. *et al.* (1987) *J. of Pathology* **152**:297
2. Downward, J. *et al.* (1984) *Nature* **311**:483
3. Gullick, WJ. *et al.* (1985) *EMBO J.* **4**:2869
4. Gullick, WJ. *et al.* (1986) *Cancer Research* **46**:285
5. Gullick, WJ. *et al.* (1991) *Br. Med. Bulletin* **47**:87

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