Epidermal Growth Factor Receptor (EGFR) Ab-2 (Clone 225)
Mouse Monoclonal Antibody

Cat. #MS-269-P0, -P1, or -P (0.1ml, 0.5ml, or 1.0ml at 200µg/ml) (Purified Ab with BSA and Azide)
Cat. #MS-269-P1ABX or -PABX (0.1ml or 0.2ml at 1.0mg/ml) (Purified Ab without BSA and Azide)

**Description:** EGFR is type I receptor tyrosine kinase with sequence homology to erbB-1, -2, -3, -4 or HER-1, -2, -3, -4. It binds to Epidermal Growth Factor (EGF), Transforming Growth Factor-α (TGF-α), Heparin-binding EGF (HB-EGF), amphiregulin, betacellulin and epieregulin. EGFR is overexpressed in tumors of breast, brain, bladder, lung, gastric, head & neck, esophagus, cervix, vulva, ovary, and endometrium. It is predominantly present in squamous cell carcinomas.

**Comments:** Ab-2 blocks EGF/TGF-α-induced activation of EGFR and efficiently arrests tumor growth in vivo. It has no effect on tyrosine kinase activity of receptor. It inhibits the binding of Ab-1 and shows no cross reaction with erbB-2, erbB-3, or erbB-4. Ab-2 is the antibody-of-choice for in vivo experiments on EGFR.

**Mol. Wt. of Antigen:** 170kDa (wild type) and 145kDa (vIII variant)

**Epitope:** Extracellular domain

**Species Reactivity:** Human, Chimpanzee and Monkey. Does not react with mouse & rat. Others-not known.

**Clone Designation:** 225

**Ig Isotype:** IgG1

**Immunogen:** Purified EGFR from A431 cells.1

**Applications and Suggested Dilutions:**
- Blocks EGF/TGFα-Induced Activation of EGFR (Ab 0.5µg/ml, cells induced by 30ng/ml EGF)
- Arrests Tumor Growth in vivo
- Inhibits Binding of Ab-1 (clone 528) to EGFR
- Immunoprecipitation (Native only)
  (Use Protein G; Ab at 2µg/mg protein lysate)

The optimal dilution for a specific application should be determined by the investigator.

**Positive Control:** A431 cells.

**Cellular Localization:** Cell membrane

**Supplied As:** 200µg/ml antibody purified from the ascites fluid by Protein G chromatography. Prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide. Also available without BSA and azide at 1mg/ml.

**Storage and Stability:**
Ab with sodium azide is stable for 24 months when stored at 2-8°C. Antibody WITHOUT sodium azide is stable for 36 months when stored at below 0°C.

**Key References:**

**Limitations and Warranty:**
Our products are intended FOR RESEARCH USE ONLY and are not approved for clinical diagnosis, drug use or therapeutic procedures. No products are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our data sheets and website. Our warranty is limited to the actual price paid for the product. NeoMarkers is not liable for any property damage, personal injury, time or effort or economic loss caused by our products.

**Material Safety Data:**
This product is not licensed or approved for administration to humans or to animals other than the experimental animals. Standard Laboratory Practices should be followed when handling this material. The chemical, physical, and toxicological properties of this material have not been thoroughly investigated. Appropriate measures should be taken to avoid skin and eye contact, inhalation, and ingestion. The material contains 0.09% sodium azide as a preservative. Although the quantity of azide is very small, appropriate care should be taken when handling this material as indicated above. The National Institute of Occupational Safety and Health has issued a bulletin citing the potential explosion hazard due to the reaction of sodium azide with copper, lead, brass, or solder in the plumbing systems. Sodium azide forms hydrazoic acid in acidic conditions and should be discarded in a large volume of running water to avoid deposits forming in metal drainage pipes.

**For Research Use Only**

**Additional Key References:**

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1. Sato JD; Kawamoto T; Le AD; Mendelsohn J; Polikoff J; Sato GH. Biological effects in vitro of monoclonal antibodies to human epidermal growth factor receptors. Molecular Biology and Medicine, 1983, 1(5):511-29.
2. Kawamoto T; Sato JD; Le A; Polikoff J; Sato GH; Mendelsohn J. Growth stimulation of A431 cells by epidermal growth factor: identification of high-affinity receptors for epidermal growth factor by an anti-receptor monoclonal antibody. Proceedings of the National Academy of Sciences of the United States of America, 1983, 80(5):1337-41.
8. Karnes WE Jr; Walsh JH; Wu SV; Kim RS; Martin MG; Wong HC; Mendelsohn J; Park JG; Cutitta F. Autonomous proliferation of colon cancer cells that coexpress transforming growth factor alpha and its receptor. Variable effects of receptor-blocking antibody. Gastroenterology, 1992, 102(2):474-85.