Anti-EGFR (RABBIT) Antibody - 100-401-149

Code: 100-401-149 **Size:** 250 µL

Product Description: Anti-EGFR (RABBIT) Antibody - 100-401-149

Concentration: 85 mg/mL by Refractometry

PhysicalState: Liquid (sterile filtered)

Label	Unconjugated
Host	Rabbit
Gene Name	EGFR
Species Reactivity	human, mouse, rat
Buffer	None
Stabilizer	None
Preservative	0.01% (w/v) Sodium Azide
Storage Condition	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Synonyms	rabbit anti-EGFR Antibody, rabbit anti-epidermal growth factor receptor antibody, Receptor tyrosine-protein kinase erbB-1 antibody, c-erbB-1 antibody
Application Note	Anti-EGFR antibody is specifically designed for ELISA, immunoblotting and immunoprecipitation. Reactivity in other assays is likely, but has not been determined. Recognition of EGFR is independent of the phosphorylation status at tyrosine 1173. No reaction is observed against ErbB-2, ErbB-3 or ErbB-4. A431 cells, keratinocytes in normal epidermis, or placenta are typically used as positive control sources. The antigen is typically localized in the cell membrane. For western blotting, good results are also achieved on PVDF membranes blocked with 5% lowfat milk diluted in TTBS for 1 hour at room temperature. Also, dilute the primary antibody and secondary in 5% lowfat milk in TTBS. Anti-EGFR can be diluted up to 1:10,000 for immunoblot depending on the cell line and the amount of EGFR in a particular lysate. For immunoprecipitation, use approximately 10 µl of the antibody. The immunoprecipitation mix should contain the antibody, 25 µl of Protein A-agarose beads and 1.0 ml of lysate (lysate contains approximately 1.0 mg of total protein). This mixture should be rotated overnight at 4°C and then washed 3 times with lysis buffer (used to prepare the lysate). The resulting bead complex is dissolved in 20-30 µl of 3X SDS-PAGE sample buffer and approximately 15 µl is loaded per lane on an 8% polyacrylamide gel.
Background	EGFR is a transmembrane glycoprotein that is a member of a family of protein tyrosine kinases crucial to maintaining a normal balance in cell growth and development. Growth factor receptors are involved not only in promoting the proliferation of normal cells but also in the aberrant growth of many types of human tumors. For example, the epidermal growth factor receptor (EGFR) is mutated and/or over-expressed in many common solid human squamous cell carcinomas including breast, brain, bladder, lung, gastric, head & neck, esophagus, cervix, vulva, ovary, and endometrium. Over-expression of the EGFR gene occurs in carcinomas with and without gene amplification. EGFR and ErbB-2 are particularly important in breast cancer because increased production or activation has been associated with poor prognosis. EGFR belongs to a family of growth factor receptors, which also includes ErbB-2/HER-2/neu, ErbB-3/HER-3/neu and ErbB-4/HER-4/neu. EGFR can heterodimerize with each of the members of this family.
Purity And Specificity	This antiserum is directed against human epidermal growth factor receptor (EGFR) and is useful in determining its presence in western blotting and immunoprecipitation experiments. This antibody can detect EGFR from human, mouse and rat sources. Reactivity of this antibody with EGFR from other species is unknown.
Assay Dilutions	User Optimized
ELISA	1:10,000 - 1:50,000
Western Blot	1:1,000 - 1:10,000
Immunohistochemistry	2.5 µg/mL
Other Assays	User Optimized
Expiration	Expiration date is one (1) year from date of opening.
Immunogen	This whole rabbit serum was prepared by repeated immunizations with a peptide synthesized using conventional technology. The sequence of the epitope maps to a region near the carboxy terminus which is identical in human, mouse and rat EGFR.

General Reference

Sartor, C.I., et al. (1997) The Role of EGF Receptor and STAT-3 Activation in Autonomous Proliferation of SUM-102PT Human Breast Cancer Cells. Cancer Research 57:978.Scambia, G., et al. (1993) Expression of ras oncogene p21 protein in normal and neoplastic ovarian tissues: Correlation with histopathological features and receptors for estrogen, progesterone, and the epidermal growth factor. Am. J. Obstet. Gynecol. 168:71-78.Henzen-Logmans, S.C., et al. (1993) Occurrence of epidermal growth factor receeptors in benign and malignant ovarian tumors and normal ovarian tissues: an immunohistochemical study. J. Can. Res. Clin. Oncol. 188:303-307.

Related Products

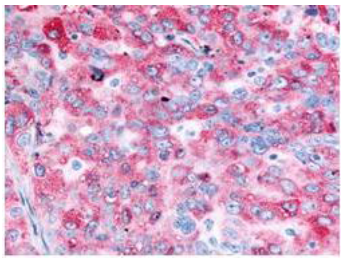
200-301-268	Anti-AKT pS473 (MOUSE) Monoclonal Antibody - 200-301-268
200-401-431	Anti-UBIQUITIN (RABBIT) Antibody - 200-401-431
600-401-905	Anti-EGFR (RABBIT) Antibody - 600-401-905
600-401-A42	Anti-STAT1 (RABBIT) Antibody - 600-401-A42

Related Links

	UniProtKB - P00533
http://www.uniprot.org/uniprot/P00533	
NCBI - 29725609	http://www.ncbi.nlm.nih.gov/protein/29725609
	GeneID - 1956

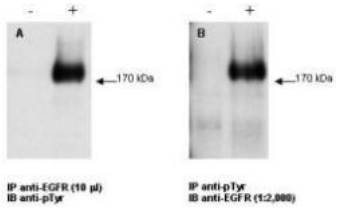
Images

1 Combined immunoprecipitation and western blot using anti-EGFR antibody. Lysates were prepared from GN4 rat liver epithelial cells both with (+) EGF treatment for 15' at 100 ng/ml and without (-) the addition of EGF. The combination of immunoprecipitation and western blotting was performed using the anti-EGFR antibody for immunoprecipitation (10 µl) followed by western blot detection using an anti-phosphotyrosine antibody (Panel A). This was repeated in reverse order using a 1:2000 dilution of anti-EGFR for western blot (Panel B). Visualization occurred using an ECL system. Film exposure was approximately 1'. Other detection systems will yield similar results.



2 Western blot using Rockland's anti-EGFR antibody shows detection of a band at ~170 kDa corresponding to human EGFR present in unstimulated (lane 1) and EGF (50 ng/ml for 15 min) stimulated (lane 2) A431 whole cell lysates (arrowhead). Approximately 30 µg of lysate was resolved on a 4-20% Tris-Glycine gel by SDS-PAGE and transferred onto nitrocellulose. After blocking, the membrane was probed with the primary antibody diluted to 1:1,000. Reaction occurred overnight at 4° C followed by washes and reaction with a 1:10,000 dilution of IRDye® 800 conjugated Gt-a-Rabbit IgG (H&L) MX10 (611-132-122) for 45 min at room temperature (800 nm channel, green). Molecular weight estimation was made by comparison to prestained MW markers in lane M (700 nm channel, red). IRDye® 800 fluorescence image was captured using the Odyssey® Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results.

	3	Combined immunoprecipitation and western blot using anti-EGFR antibody. Lysates were prepared from GN4 rat liver epithelial cells both with (+) EGF treatment for 15' at 100 ng/ml and without (-) the addition of EGF. The combination of immunoprecipitation and western blotting was performed using the anti-EGFR antibody for immunoprecipitation (10 µL) followed by western blot detection using an anti-phosphotyrosine antibody (Panel A). This was repeated in reverse order using a 1:2000 dilution of anti-EGFR for western blot (Panel B). Visualization occurred using an ECL system. Film exposure was approximately 1'. Other detection systems will yield similar results.



Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.