



Anti- human EGFR Mouse Monoclonal Primary Antibody

Clone: UMAB95

IVD

REF CE00021

CATALOG NUMBER

C0021MA01-MA 0.1 mL
C0021MA05-MA 0.5 mL

ENGLISH

Intended use

Anti- human EGFR Mouse Monoclonal Primary Antibody is intended for the detection of EGFR protein expression in frozen or formalin fixed human tissues and cells. The clinical interpretation of any positive staining or its absence should be complemented by morphological and histological studies with proper controls. Evaluations should be made within the context of the patient's clinical history and other diagnostic tests by a qualified pathologist. The antibody is intended for *in vitro* diagnostic (IVD) use.

Background

EGFR is a transmembrane glycoprotein that is a member of the protein kinase superfamily. This protein is a receptor for members of the epidermal growth factor family. EGFR is a cell surface protein that binds to epidermal growth factor. Binding of the protein to a ligand induces receptor dimerization and tyrosine autophosphorylation and leads to cell proliferation. Mutations in this gene are associated with lung cancer. Multiple alternatively spliced transcript variants that encode different protein isoforms have been found for this gene.

Alternative names: ERBB1; HER1; Epidermal Growth Factor Receptor

Reagent provided

Anti- human EGFR Mouse Monoclonal Primary Antibody (Clone: UMAB95) is provided in liquid form in 20mM Sodium phosphate, 150mM Sodium chloride, 0.2% BSA, 0.09% Sodium azide, pH 7.4. The isotype of the antibody is IgG1. The total protein concentration is 0.4 ± 0.05 mg/mL.

For Immunohistochemistry the primary antibody may be used at a working dilution of 1:100 – 1:200 for formalin-fixed, paraffin-embedded human tissues, and this can be dependent upon the detection system used. These are guidelines only, and the optimal dilutions should be determined by the individual laboratory.



Immunogen

Full length recombinant protein of human EGFR(NP_958440) produced in HEK293T cell.

Specificity

The specificity of the anti- human EGFR Mouse Monoclonal Primary Antibody was established on normal human placenta, lung cancer and spleen. The anti-EGFR presented no staining on formalin fixed human spleen, positive staining on normal human placenta and lung cancer using immunohistochemical (IHC) test methods.

Materials Required but Not Supplied

Antibody diluent, HIER solution, Antibody detection kits, Chromogen, Staining reagents, negative and positive tissue control slides are not included.

Precautions

1. For use by trained professionals only.
2. This product contains sodium azide (NaN_3), a chemical highly toxic in pure form. At product concentrations, though not classified as hazardous, NaN_3 may react with lead and copper plumbing to form highly explosive build-ups of metal azides. Upon disposal, flush with large volumes of water to prevent metal azide build-up in plumbing.
3. Wear appropriate Personal Protective Equipment to avoid contact with eyes and skin.
4. Unused reagents should be disposed of according to local, State, and Federal regulations.

Storage

Store at 2-8°C. Do not use the product past the expiration date indicated on the label. If reagents are stored under any other conditions, the end user must verify the acceptability of those conditions. There are no obvious signs to indicate instability of this product therefore, positive and negative controls should be run simultaneously with patient specimens.

Specimen Preparation

Paraffin Sections

Anti- human EGFR Mouse Monoclonal Primary Antibody can be used on formalin-fixed, paraffin-embedded tissue sections at a working dilution of 1:100 to 1:200. Anti- human EGFR Mouse Monoclonal Primary Antibody working dilution requires 20 minutes of pretreatment with Heat Induced Epitope Retrieval (HIER) at 95 to 100°C in a pressure chamber. We recommend using Citrate pH 6.0 buffer (GBI Labs B05C-100), which showed optimal staining at a dilution of 1:200 on human lung cancer and placenta, negative staining on human spleen tissue using a two-step detection system (Polink-2 Broad HRP).

Staining procedure

Manual Staining Procedure

1. Deparaffinize slides.
2. Submerge slides in peroxidase quenching solution for ~10 minutes and rinse with PBS-T 3 times, 2 minutes each.
3. Heat Induced Epitope Retrieval in a pressure chamber is required for this antibody.
4. Apply serum blocking solution.[Optional]
5. Apply primary antibody and incubate for 30-60 minutes at room temperature. After incubation wash with PBS-T 3 times, 2 minutes each.
6. Apply secondary antibody and incubate according to the data sheet of the detection system. Wash with PBS-T 3 times, 2 minutes each.
7. Apply enzyme conjugate and incubate according to data sheet of detection system. Wash with PBS-T 3 times, 2 minutes each.
8. Apply chromogen and incubate 5-10 minutes and rinse with distilled water.

Staining interpretation

The cellular staining pattern for Anti- human EGFR Mouse Monoclonal Primary Antibody is cytoplasmic and membranous.

Performance Characteristics

Predicted Staining in Normal Tissue/Cells

Normal human placenta and human lung cancer were shown to be positive for this antibody. Normal human spleen was shown to be negative.

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