

Anti- human p53 Mouse Monoclonal Primary Antibody

Clone: D07

IVD

REF CE00003

CATALOG NUMBER

C0003MA01-MA 0.1 mL
C0003MA05-MA 0.5 mL
C0003MA10-MA 1.0 mL

ENGLISH

Intended use

Anti- human p53 (Clone: D07) Mouse Monoclonal Primary Antibody is intended for the detection of p53 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

The p53/TP53 gene encodes a tumor suppressor protein containing transcriptional activation, DNA binding, and oligomerization domains. The TP53 gene is located on chromosome 17p13.1. The encoded protein responds to diverse cellular stresses to regulate expression of target genes, thereby inducing cell cycle arrest, apoptosis, senescence, DNA repair, or changes in metabolism. Mutations in this gene are associated with a variety of human cancers, including hereditary cancers such as Li-Fraumeni syndrome. Alternative splicing of this gene and the use of alternate promoters result in multiple transcript variants and isoforms. Additional isoforms have also been shown to result from the use of alternate translation initiation codons (PMIDs: 12032546, 20937277). [provided by RefSeq, Feb 2013].

Alternative names: Tumor protein p53 Li-Fraumeni syndrome; P53, TRP53 Antigen NY-CO-13; Phosphoprotein p53; Tumor suppressor p53

Reagent provided

Anti- human p53 (Clone: D07) Mouse Monoclonal Primary Antibody 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 IgG2b. The total protein concentration is 0.2 +/- 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, dependent upon the detection system used. These are guidelines only and optimal dilutions should be determined by the individual laboratory.

Immunogen

Recombinant human wild type p53 protein expressed in E. coli.

Specificity

The specificity of the anti- human p53 (Clone: DO7) Mouse Monoclonal Primary Antibody was established on human colon tumor and negative human lung tissue. The anti-p53 presented no staining on formalin fixed normal lung tissue and positive staining on formalin fixed human colon tumor tissue 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 p53 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 p53 Mouse Monoclonal Primary Antibody working dilution requires 20 minutes of pretreatment with Heat Induced Epitope Retrieval (HIER) for staining. We recommend using HIER TEE Buffer pH 9.0, which showed optimal staining at a dilution of 1:200 on colon cancer and negative staining on p53 on normal lung tissue using one step detection systems (Polink-1 Broad HRP). The dilutions are estimates; the actual staining results may vary due to reagents and detection protocols used. Validation of antibody performance and final protocol is the responsibility of the end user.

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 is required for this antibody.
4. Apply serum blocking solution.[Optional but recommended]
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 p53 Mouse Monoclonal Primary Antibody is predominantly nuclear.

Performance Characteristics

Predicted Staining in Normal Tissue/Cells

Normal human lung was shown to be negative for this antibody.

Predictive Staining in Tumor

Anti- human p53 Mouse Monoclonal (Clone: DO7) produced strong nuclear staining when screened on human colon tumor tissue.

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