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Product Information

Monoclonal Anti-Cytokeratin Peptide 18-FITC, clone CY-90
produced in mouse, purified immunoglobulin

Catalog Number **F4772**

Product Description

FITC Monoclonal Anti-Cytokeratin Peptide 18 is a purified mouse monoclonal antibody conjugated with fluorescein isothiocyanate (FITC) isomer I. Monoclonal Anti-Cytokeratin Peptide 18 (mouse IgG1 isotype) is derived from the CY-90 hybridoma produced by the fusion of mouse myeloma cells and splenocytes of immunized BALB/c mice. Human epidermal carcinoma (A-431) and cultured MCF-7 human breast cancer cells were used as the immunogen. The isotype is determined by a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2.

Monoclonal Anti-Cytokeratin Peptide 18 recognizes the 45 kDa (cytokeratin 18) band in immunoblotting. It reacts specifically with a variety of human simple epithelia (e.g., liver, intestine, pancreas, urinary bladder, salivary gland, thyroid, prostate, kidney tubules, placenta). It does not react with stratified squamous epithelia. With a few possible exceptions, (e.g., certain smooth muscle cells, it does not react with non- epithelial tissues. This antibody is reactive with methanol- or acetone-fixed frozen sections, and with protease-digested, formalin-fixed, paraffin-embedded human tissues. Anti-Cytokeratin Peptide 18 cross reacts with cytokeratin from several mammalian species (e.g., guinea pig, hamster and rabbit).

Intermediate-sized filaments are abundant cytoplasmic structural proteins in most vertebrate cells. Cytokeratins, a group comprised of at least 29 different proteins are characteristic of epithelial and trichocytic cells. Cytokeratin Peptide 18 is a member of the type I acrylic subfamily. It is a 45 kDa polypeptide, differentially expressed[2] in various human tissues. Cytokeratin Peptide 18 can be detected by biochemical or immunohistochemical means in simple, glandular, pseudostratified and transitional epithelium. Neo-plastic cells usually retain the intermediate filament pattern of their cell of origin. Monoclonal anti-cytokeratins are specific markers of epithelial cell differentiation and have been widely used as tools in tumor identification and classification. FITC Monoclonal Anti-Cytokeratin Peptide 18 is a chain specific antibody which can facilitate typing of normal, metaplastic and neoplastic cells.

FITC Monoclonal Anti-Cytokeratin Peptide 18 may be used for the localization of cytokeratin peptide 18 in cytological and histological preparations using direct immunofluorescent staining. It enables double staining in combination with antibodies directed against other markers.

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 1% BSA with 15 mM sodium azide as a preservative.

Antibody concentration: 2-4 mg/ml

F/P Molar ratio: 3-8

Precautions

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage

For continuous use, store at 2-8 °C up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Protect from prolonged exposure to light.

Product Profile

Direct immunofluorescence: a minimum antibody titer of 1:100 was determined using protease-digested, formalin-fixed, paraffin-embedded sections of human tissues.

Note: In order to obtain best results in different techniques and preparations, it is recommended that each individual user determine their optimum working dilutions by titration assay.

References

1. Moll, R., et al., *Cell*, **31**, 11 (1981).
2. Lane, E. and Alexander, C., *Serum Conc. Biol*., **1**, 165 (1990).