

Product No. F 0397
Lot 077H4851

Monoclonal Anti-Pan Cytokeratin
FITC Conjugate
Purified Mouse Immunoglobulin
Clone PCK-26

FITC Monoclonal Anti-Pan Cytokeratin is a purified mouse monoclonal antibody conjugated with fluorescein isothiocyanate (FITC) isomer I. Monoclonal anti-pan cytokeratin (mouse IgG1 isotype) is derived from the PCK-26 hybridoma produced by the fusion of mouse myeloma cells and splenocytes of immunized BALB/c mice. A cytokeratin preparation from human epidermis was used as the immunogen. The isotype is determined using Sigma ImmunoType[™] Kit (Sigma Stock No. ISO-1) and by a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents (Sigma Stock No. ISO-2). The product is provided as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 1% BSA with 15 mM sodium azide as a preservative.

Specificity

Monoclonal Anti-Pan Cytokeratin recognizes the 58 kD (cytokeratin 5), the 56 kD (cytokeratin 6) and the 52 kD (cytokeratin 8) bands in immunoblotting.¹ PCK-26 is a broad spectrum antibody which reacts specifically with a wide variety of normal, reactive and neoplastic epithelial tissues. The antibody reacts with simple, cornifying and non cornifying squamous epithelia and pseudostratified epithelia. It does not react with non-epithelial normal human tissues. This antibody can be applied to methanol- or acetone-fixed frozen sections, and to protease-digested, formalin fixed, paraffin-embedded human tissues. Similarly embedded methacarn-fixed material is also suitable for cytokeratin demonstration. Anti-Pan Cytokeratin cross reacts with cytokeratins from many species (e.g., rabbit, guinea pig, goat, bovine, sheep, rat, mouse, hamster, dog, cat, chicken, viper, lizard and carp).

Description

Intermediate 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.

Cytokeratins 5, 6 and 8 are members of the type II, neutral-to-basic subfamily. Cytokeratin peptide 5 is the primary type II keratin in stratified epithelia while cytokeratin type 8 is a major type II keratin in simple epithelia. Cytokeratin 6 is a "hyperproliferation" cytokeratin expressed in tissues with natural or pathological high turnover. 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-Pan Cytokeratin is a broadly reactive group type antibody which recognizes an epitope present in most human epithelial tissues.

Uses

FITC Monoclonal Anti-Pan Cytokeratin may be used for the localization of cytokeratins in cytological and histological preparations using direct immunofluorescent staining. It enables double staining in combination with antibodies directed against other markers. The product facilitates typing of normal, metaplastic and neoplastic cells and may aid in the discrimination of carcinomas and non-epithelial tumors such as sarcomas, lymphomas and neural tumors. It is also useful in detecting micrometastases in lymph nodes and other tissues and for determining the origin of poorly differentiated tumors.^{1,2}

F/P Molar Ratio: 3.8

Titer: > 1:25

The antibody titer was determined by indirect immunofluorescent staining of protease-digested, formalin-fixed, paraffin-embedded sections of human or animal tissues.

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.

Storage

For continuous use, store at 2-8°C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is **not** recommended. 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.

References

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