

Product No. C-1801
Lot 115H4802

Monoclonal Anti-Pan Cytokeratin
Mouse Ascites Fluid
Clone PCK-26

Monoclonal Anti-Pan Cytokeratin (mouse IgG1 isotype) is derived from the PCK-26 hybridoma produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a cytokeratin preparation from human epidermis. The isotype is determined using the 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 ascites fluid with 0.1% sodium azide (see MSDS)* 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 band in immunoblotting.¹ The PCK-26 clone produces 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-sized filaments are abundant cytoplasmic structural proteins found in most vertebrate cells. Cytokeratins, a group comprising at least 29 different proteins are characteristic of epithelial and trichocytic cells. Cytokeratin 5, 6 and 8 are members of the type II neutral-to-basic subfamily. Cytokeratin peptide 5 (58 kD) is the primary type II keratin in stratified

epithelia while cytokeratin type 8 (52 kD) is a major type II keratin in simple epithelia. Cytokeratin 6 (56 kD) is a "hyperproliferation" cytokeratin expressed in tissues with natural or pathological high turnover. Monoclonal antibodies to cytokeratins are specific markers of epithelial cell differentiation and have been widely used as tools in tumor identification and classification. Monoclonal Anti-Pan Cytokeratin is a broadly reactive group-type antibody which recognizes an epitope present in most human epithelial tissues. It facilitates the typing of normal, metaplastic and neoplastic cells and it 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}

Uses

Monoclonal Anti-Pan Cytokeratin may be used for the localization of cytokeratins using various immunochemical assays such as immunoblotting, dot blotting and immunohistochemistry (immunofluorescence and immunoenzymatic staining).

Titer: 1:300

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 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.

* Due to the sodium azide content a material safety sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazardous and safe handling practices.

References

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