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AM33270PU-N Monoclonal Antibody to pan Cytokeratin - Purified

Alternate names: Cytokeratin pan-reactive, pan Keratin

Quantity: 0.2 mg

Concentration: 0.2 mg/ml

Background: Cytokeratins are intermediate filament keratins found in the intracytoplasmic cytoskeleton of epithelial tissue There are two types of Cytokeratins: the low weight, acidic type I cytokeratins and the high weight, basic or neutral type II. Cytokeratins are usually found in pairs comprising a type I Cytokeratin and a type II cytokeratin. The high molecular weight cytokeratins, which are the basic or neutral cytokeratins, comprise subtypes CK1(67), CK2(65.5), CK3(64), CK4(59), CK5(58), CK6(56), CK7(54), CK8(52.5) and CK9. The low molecular weight cytokeratins, which are the acidic cytokeratins, comprise subtypes CK10 (56.5), CK12 (56), CK13 (53), CK14 (50), CK16 (48), CK17 (46), CK18 (45), CK19 (48) and CK20 (46).

Host / Isotype: Mouse / IgG1

Recommended Isotype Controls: SM10P (for use in human samples), SM20P (for use in rat samples), AM03095PU-N

Clone: SPM115 + SPM116

Immunogen: Human epidermal keratin.

Format:
State: Liquid purified IgG fraction from Bioreactor Concentrate
Purification: Protein A/G Chromatography
Buffer System: 10mM PBS
Preservatives: 0.05% Sodium Azide
Stabilizers: 0.05% BSA

Applications:
Western Blot: 0.5-1 µg/ml.
Flow Cytometry: 0.5-1 µg/10^6 cells.
Immunofluorescence: 1-2 µg/ml.
Immunohistochemistry on Formalin-Fixed Paraffin Sections: 0.5-1 µg/ml for 30 minutes at RT.
Staining of formalin-fixed tissues requires boiling tissue sections in 10mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes.
Positive Control: Skin, Adeno- or Squamous carcinomas.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: Twenty Human keratins are resolved with two-dimensional gel electrophoresis into acidic (pI ‹ 5.7) and basic (pI › 6.0) subfamilies. This antibody cocktail recognizes acidic (Type I or LMW) and basic (Type II or HMW) cytokeratins, which include CK1, CK3, CK4, CK5, CK6, CK8, CK10, CK14, CK15, CK16, and CK19. Many studies have shown the usefulness of keratins as markers in cancer research and tumor diagnosis.
This Monoclonal Antibody is a broad spectrum anti pan-Cytokeratin antibody cocktail, which differentiates epithelial tumors from non-epithelial tumors e.g. squamous vs. adenocarcinoma of the lung, liver carcinoma, breast cancer, and esophageal cancer.

It has been used to characterize the source of various neoplasms and to study the distribution of cytokeratin containing cells in epithelia during normal development and during the development of epithelial neoplasms.
This antibody stains Cytokeratins present in normal and abnormal human tissues and has shown high sensitivity in the recognition of epithelial cells and carcinomas.
Cellular Localization: Cytoplasmic.

Species Reactivity: **Tested:** Human, Monkey, Cow, Dog, Rabbit, Mouse, Rat, Chicken.

Storage: Store undiluted at 2-8°C.
Shelf life: one year from despatch.

General Readings:
1. Woodcock-Mitchell J, Eichner R, Nelson WG, Sun TT. Immunolocalization of keratin polypeptides in human epidermis using monoclonal antibodies. J Cell Biol. 1982 Nov;95(2 Pt 1):580-8. PubMed PMID: 6183275.
2. Tseng SCG et. al. Cell 1982; 30361.

Pictures: Formalin-Fixed, Paraffin-Embedded Breast carcinoma stained with pan Cytokeratin Antibody cocktail Cat.-No AM33270PU (Clone SPM115+SPM116).