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Cytokeratin 18 (KRT18) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone SPM510]
Catalog # AH10572

Product Information

Application	WB, IF, FC, IHC-P
Primary Accession	P05783
Other Accession	3875, 406013
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Clone Names	SPM510
Calculated MW	48058

Additional Information

Gene ID	3875
Other Names	Keratin, type I cytoskeletal 18, Cell proliferation-inducing gene 46 protein, Cytokeratin-18, CK-18, Keratin-18, K18, KRT18, CYK18
Application Note	WB~~1:1000 IF~~1:50~200 FC~~1:10~50 IHC-P~~N/A
Format	200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	Cytokeratin 18 (KRT18) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	KRT18 (HGNC:6430)
Synonyms	CYK18
Function	Structural component of intermediate filaments in simple epithelial cells. Forms intermediate filaments by heterodimerizing with the type II keratin KRT8, providing mechanical stability and resilience to epithelial cells (PubMed:15529338, PubMed:26823019). Involved in ARHGEF40-mediated actin stress fiber formation and tensional force- induced stress fiber formation and reinforcement (PubMed:26823019). Integrates into the intermediate filament network of skeletal muscle fibers alongside desmin and

	KRT19, contributing to force transmission (By similarity). Organization and orientation of KRT8/KRT18 filaments are responsible for the properly elongated morphology of epithelial tubules (By similarity). Also acts downstream of ROCK kinase activation as part of a positive feedback mechanism in response to cellular mechanical stress loading (PubMed:26823019). Involved in the uptake of thrombin-antithrombin complexes by hepatic cells (By similarity). When phosphorylated, plays a role in filament reorganization (PubMed:7523419, PubMed:8522591, PubMed:9298992, PubMed:9524113). Involved in the delivery of mutated CFTR to the plasma membrane (PubMed:15529338, PubMed:16424149). Involved in interleukin-6 (IL-6)- mediated barrier protection (PubMed:17213200).
Cellular Location	Nucleus matrix {ECO:0000250|UniProtKB:Q5BJY9}. Cytoplasm, perinuclear region. Nucleus, nucleolus. Cytoplasm {ECO:0000250|UniProtKB:Q5BJY9}
Tissue Location	Expressed in colon, placenta, liver and very weakly in exocervix. Increased expression observed in lymph nodes of breast carcinoma.

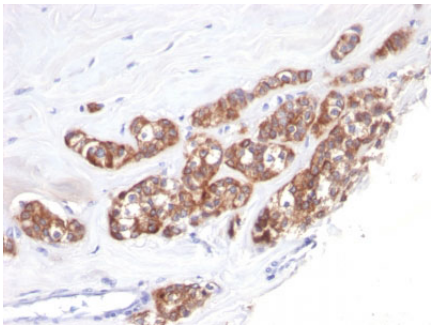
Background

This MAb reacts with a wide variety of simple epithelia. It does not react with stratified squamous epithelia. It reacts with epithelial tumors of the gastrointestinal tract, lung, breast, pancreas, ovary, and thyroid. Cytokeratin 18, which belongs to the type A (acidic) subfamily of low molecular weight keratins, exists in combination with cytokeratin 8. It was reported that tissues from gastrointestinal tract are positive for both cytokeratin 8 and 18 but do not contain cytokeratin 14. Tissues from gastrointestinal tract, respiratory tract and urogenital tract, as well as endocrine and exocrine tissues and mesothelial cells are positive for cytokeratin 18.

References

Lane EB et. al. Sem Cancer Biol 1:165-179 (1990).2. Lauerova et. al. Hybridoma 7:495-504 (1988)

Images



Formalin-fixed, paraffin-embedded human Breast Carcinoma stained with Cytokeratin 18 Monoclonal Antibody (SPM510).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.