

Monoclonal Antibody to Cytokeratin 8/18 (Clone 5D3)



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Catalog No : IMG-80125	Application
Formulation : This antibody is supplied as tissue culture supernatant containing 0.05% sodium azide as preservative.	IHC (paraffin): 1:25-1:50
Isotype : Mouse IgG1	Storage
Clone : 5D3	Store the antibody at 4-8°C.
Species React : Human	Recommended Positive Control: Skin
Predicted React : Mouse	
Host : Mouse	

Background

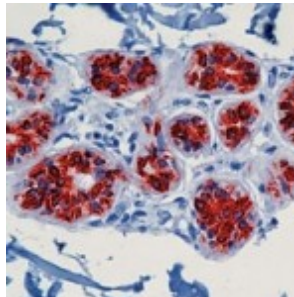
Principal Names: Keratin 8 Official Gene Symbol: KRT8 Gene ID: 3856 (Human) Gene Map Locus: 12q13 (Human) Principal Names: Keratin 18 Official Gene Symbol: KRT18 Gene ID: 3875 (Human) Gene Map Locus: 12q13 (Human) Among the cytoplasmic intermediate filaments (IF) proteins, keratins make up the largest family and are expressed specifically in epithelial cells in a cell-specific manner. Keratins include more than 20 unique gene products (termed K1-K20) that are divided into type I (K9-K20) and type II (K1-K8). Cytokeratin 8 (CK8) is especially remarkable as it is produced early in embryogenesis, is the only type-II CK occurring in many simple epithelial cells, and can also be synthesized in certain non-epithelial cells. Together with KRT19, it helps to link the contractile apparatus to dystrophin at the costameres of striated muscle. Mutations in this gene have been linked to liver cirrhosis. It maps to 12q13 region of human chromosome. Cytokeratin 18 is a type-I keratin that is found in a variety of simple epithelial tissues. Cytokeratin 8 and 18 (K8/18) phosphorylation plays a significant and site-specific role in regulating keratin filament organization, association with binding proteins, and modulation of cell cycle progression. Mutations in this gene have been linked to cryptogenic cirrhosis. Two transcript variants encoding the same protein have been found for this gene. It maps to 12q13 region of human chromosome. It is expressed in colon, placenta, liver and very weakly in exocervix. Genebank accession no is NP_954657.1 (KRT18), NP_002264.1 (KRT8)

Antigen

Cytokeratins from the human breast carcinoma cell line MCF-7.

Application Notes

1. We suggest an incubation period of 30 minutes at room temperature. However, depending upon the fixation conditions and the staining system employed, optimal incubation should be determined by the user. Proteolytic treatment is required prior to immunostaining of formalin fixed paraffin embedded tissue sections. Specificity: This antibody is specific to human cytokeratins 8 (52.5 kD) and 18 (45 kD). This antibody stains simple and glandular epithelium. This antibody can be useful for the identification of adenocarcinomas and most squamous cell carcinomas. Cellular Localization: Cytoplasmic.
2. Mouse reactivity: The 5D3 antibody clone has been shown to react in mouse using a method which prevents secondary anti-mouse antibody binding to endogenous mouse immunoglobulins. For details see Martin et al, 2001.



IHC analysis of Cytokeratin 8/18 formalin-fixed paraffin embedded human skin using IMG-80125.

Reference

1. Angus et al. J Pathol 155: 71, 1988.
2. Angus et al. J Pathol 153: 377, 1987.
3. Krauss et al. Gene 8: 241, 1990.
4. Darling et al. Proc Natl Acad Sci U.S.A. 100: 6063, 2003.
5. Oshima et al. Differentiation 33: 61, 1986.
6. Toivola et al. Hepatology 40: 459, 2004.

Product Citations

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1. **Cytokeratin immunoreactivity in mouse tissues: Study of different antibodies with a new detection system.** Martin CA, PD Salomoni, and AF Badran. *Applied Immunohistochemistry & Molecular Morphology* 9:70-73. (2001). **IHC (paraffin), mouse tissues including lung, kidney, liver, stomach, and small and large intestine: Representative data shown in Fig 3 (colon mucosa).**

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