SIGMA CHEMICAL COMPANY

Product No. C 6909
Lot 067H4820

Monoclonal Anti-Cytokeratin 8.13

Mouse Ascites Fluid
Clone K8.13

Monoclonal Anti-Cytokeratin 8.13 (mouse IgG2a isotype) is derived from the hybridoma produced by the fusion of mouse myeloma cells and splenocytes from an immunized mouse. Bovine epidermal keratins were 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 ascites fluid with 0.1% sodium azide (see MSDS)* as a preservative.

Specificity

The antibody reacts specifically with a wide variety of epithelial tissues and cultured epithelial cells.[1] Monoclonal Anti-Cytokeratin 8.13 binds to a determinant present in a large number of human cytokeratins, notably polypeptides 10, 11 and 18. In all tissues tested the antibody did not stain cells of non-epithelial origin.

Working Dilution

A working dilution of 1:100 was determined by indirect labeling of frozen tissue sections.

In order to obtain best results, it is recommended that each individual user determine their optimum working dilution by titration assay.

Uses

Monoclonal Anti-Cytokeratin 8.13 may be used to aid in the differentiation between tumors of mesenchymal (keratin-negative) and epithelial (keratin-positive) origin.

Normal Human Tissue

In the following tissues epithelial elements were positively stained with Monoclonal Anti-Cytokeratin 8.13 while cells of non-epithelial origin were not stained.

Skin
- Epidermis (all layers)
- Sweat glands and ducts
- Sebaceous glands

Gastrointestinal Tract
- Salivary glands (acini and ducts)
- Stratified, non-keratinizing esophageal epithelium and mucous glands
- Surface epithelium of the stomach and gastric glands
- Intestinal epithelium and glands (large and small intestine
- Rectal epithelium (squamous, non-keratinizing) and glands
- Hepatocytes and bile ducts
- Pancreatic acini and ducts

Respiratory
- Ciliated columnar epithelium and basal cells of trachea and bronchi
- Serous and mucous glands and ducts
- Alveolar epithelium

Urinary
- Kidney tubules (partially positiv)
- Transitional epithelium of ureter and bladder

Genital Tract
- Glandular epithelium of prostate
- Glands and surface epithelium of endometrium
- Non-keratinizing, squamous epithelium of exocervix and mucosal cells of endocervix
- Mammary gland ducts and acini

Lymphatic
- Reticular cells in thymus (all circulating lymphocytes and lymph node cells are negative)

Human Tumors

Among the following tumors those of epithelial origin are positively stained with Monoclonal Anti-Cytokeratin 8.13 while those of mesenchymal origin are unstained. In mixed tumors epithelial elements are positively stained while mesenchymal elements are not stained.

Location	Tumor Type	Staining
Skin	Basal Cell Carcinoma	Positive
	Nevus	Negative
	Melanoma	Negative
Lung	Squamous Cell Carcinoma	Positive
	Metastatic Melanoma	Negative
	Adenocarcinoma	Positive
	Lymphoma	Positive
	Large Cell Carcinoma	Positive
	Carcinosarcoma:	
	Carcinomatous Cells	Positive
	Sarcomatous Cells	Negative

Reference

1. Gigi, O., et al., EMBO J., **1**, 1429 (1982).

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

Storage

For continuous use, store at 2-8°C. For extended storage, the solution may be frozen 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.