

Mouse anti-Smoothelin, clone R4A

Clone no. R4A

MONOSAN Ready To Use

Product name	Mouse anti-Smoothelin, clone R4A
Host	Mouse
Applications	IHC-P
Species reactivity	human
Conjugate	-
Immunogen	Unknown or proprietary to MONOSAN and/or its suppliers
Isotype	IgG1
Clonality	Monoclonal
Clone number	R4A
Size	7 ml
Concentration	n/a
Format	-
Storage buffer	Tris Buffer, pH 7.3-7.7, containing 1% BSA and <0.1% Sodium Azide
Storage until expiry date	2-8°C

FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES

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Additional info

Smoothelin is a constituent of the smooth muscle cell cytoskeleton protein exclusively found in differentiated smooth muscle cells (SMC). Cells with SMC-like characteristics, such as myofibroblasts and myoepithelial cells, as well as skeletal and cardiac muscle do not contain smoothelin.^{1,2} To distinguish bladder muscularis mucosae (MM) from muscularis propria (MP) muscle bundles is crucial for accurate staging of bladder carcinoma. Strong smoothelin expression is nearly exclusively observed in muscularis propria. Therefore, the staining pattern of MP (strongly positive) and MM (negative or weakly positive) makes this technique an attractive diagnostic tool for the sometimes difficult task of staging bladder urothelial carcinoma, such as in transurethral resection specimens of urinary bladder tumors.³⁻⁵ Differentiating between smooth muscle tumors and other mesenchymal neoplasms of the GI tract can be challenging in small biopsies. Anti-smoothelin immunostaining can be helpful in differentiating benign (+) from malignant smooth muscle tumors (-), and other mimics(-).

References

1. van der Loop FT, et al. J Cell Biol. 1996; 134:401-11
2. Maake C, et al. J Urol. 2006; 175:1152-7
3. Paner GP, et al. Am J Surg Pathol. 2010; 34:792-9
4. Council L, et al. Mod Pathol. 2009; 22:639-50
5. Coco DP, et al. Am J Surg Pathol. 2009; 33:1795-801

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