



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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Mouse anti-Human Smoothelin, clone R4A (Monoclonal)

Clone no. R4A

MONOSAN

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Product name	Mouse anti-Human Smoothelin, clone R4A (Monoclonal)
Host	Mouse
Applications	IHC-P (1:100-1:500)
Species reactivity	human
Conjugate	-
Immunogen	Unknown or proprietary to MONOSAN and/or its suppliers
Isotype	IgG1
Clonality	Monoclonal
Clone number	R4A
Size	1 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

## Mouse anti-Human Smoothelin, clone R4A (Monoclonal)

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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.<sup>1,2</sup> 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.<sup>3-8</sup> Differentiating between smooth muscle tumors and other mesenchymal neoplasms of the GI tract can be challenging in small biopsies.

**References**

1. van der Loop, FT et al. J Cell Biol 1996; 134:401-411
2. Kramer, J et al. J Mol Med 1999; 77:294-8
3. Jimenez, RE et al. Adv Anat Pathol 2000; 7:13-25
4. Kuijpers, et al. Eur Urol 2007; 52:1213-21
5. Paner, GP et al. Am J Surg Pathol 2010; 34:792-9

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