Product datasheet   MON2094

MONOSAN®

Mouse anti-Smoothelin, clone R4A, Purified (Monoclonal)
Clone no.   R4A   MONOSAN

Product name	Mouse anti-Smoothelin, clone R4A, Purified (Monoclonal)
Host	Mouse
Applications	ICC, IHC-fr, IHC-P, WB
Species reactivity	human, canine, chicken, feline, monkey, swine
Conjugate	-
Immunogen	cytoskeletal extract of chicken gizzard
Isotype	IgG1
Clonality	Monoclonal
Clone number	R4A
Size	100 ug
Concentration	1 mg/ml
Format	-
Storage buffer	PBS with 0.09% sodium azide
Storage until expiry date	2-8°C

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Additional info

Smoothelin is a constituent of the smooth muscle cell (SMC) cytoskeleton. Antibodies directed to smoothelin are useful tools to monitor SMC differentiation. Smoothelin is exclusively expressed in fully differentiated (contractile) SMCs. RNA and protein analyses revealed a broad species distribution of this protein. Smoothelin has also been detected in smooth-muscle neoplasms. Cells with SMC-like characteristics, such as myofibroblasts and myoepithelial cells, as well as skeletal and cardiac muscle do not contain smoothelin. Confocal scanning laser microscopy of tissue sections and cells in culture show a filamentous organization of smoothelin colocalizing with actin stress fibers. In immunoblots two molecular weight isoforms are detected i.e. a 59 kDa isoform specific for visceral SMC (smoothelin A), and an isoform with a molecular weight of approximately 100 kDa in vascular SMC (smoothelin B). Human smoothelin is encoded by a single copy gene which is loCated on chromosome 22.

References

1.   van der Loop et al. J Cell Biol 1996;134:401-411
2   Wehrens et al. FEBS letter 1997;405:315-320
3.   Deruiter et al. Dev Dyn 2001;221:460-463
4.   Council et al. Modern Pathology 2009;22:639-650
5.   Coco et al. Am J Surg Pathol 2009;33:1795-1801

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