Revision 1

Store at -20C

#12784

Nucleus and Nuclear Envelope-Associated Marker Proteins Antibody Sampler Kit

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
ESET (C1C12) Rabbit mAb	2196	40 µl	180 kDa	Rabbit IgG
Fibrillarin (C13C3) Rabbit mAb	2639	40 µl	37 kDa	Rabbit IgG
Histone H2A.Z Antibody	2718	40 µl	14 kDa	Rabbit
Histone H3 (D1H2) XP® Rabbit mAb	4499	40 µl	17 kDa	Rabbit IgG
Lamin A/C (4C11) Mouse mAb	4777	40 µl	74 (Lamin A), 63 (Lamin C) kDa	Mouse IgG2a
LSD1 (C69G12) Rabbit mAb	2184	40 µl	110 kDa	Rabbit IgG
NUP98 (C39A3) Rabbit mAb	2598	40 µl	98 kDa	Rabbit IgG
Anti-rabbit IgG, HRP-linked Antibody	7074	100 µl		Goat
Anti-mouse IgG, HRP-linked Antibody	7076	100 µl		Horse

Please visit cellsignal.com for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

Description

The Nucleus and Nuclear Envelope-Associated Marker Proteins Antibody Sampler Kit provides an economical means to evaluate relevant nuclear proteins. This kit contains enough primary antibody to perform at least four western blots per primary antibody.

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Background

The Nucleus and Nuclear Envelope-Associated Marker Proteins Antibody Sampler Kit contains a variety of antibodies directed against established nuclear proteins (1). Histone H3 and histone H2A.Z are histone family members and components of nucleosomes, the primary building block of chromatin made up of DNA wound around eight core histone proteins. The amino-terminal tails of core histones undergo various post-translational modifications and have a direct effect on the accessibility of chromatin to transcription factors and, therefore, gene expression (2). ESET histone methyltransferase (3) and LSD1 histone demethylase (4) are both regulators of histone methylation and are chromatin-associated. Both NUP98 (5) and lamins (6) are located within the nuclear envelope (also known as the nuclear membrane). NUP98 is a component of the nuclear pore complex. Lamin A and lamin C are fibrous proteins contributing to nuclear structural and transcriptional regulation. Finally, fibrillarin (7) is located in fibrillar regions and Cajal bodies of nucleoli, where it functions to regulate RNA transcription and pre-rRNA processing.

Background References

1. Workman, J.L. and Kingston, R.E. (1998) *Annu Rev Biochem* 67, 545-79.
2. Jin, J. et al. (2005) *Trends Biochem Sci* 30, 680-7.
3. Yang, L. et al. (2002) *Oncogene* 21, 148-52.
4. Shi, Y. et al. (2004) *Cell* 119, 941-53.
5. Fontoura, B.M. et al. (1999) *J Cell Biol* 144, 1097-112.
6. Gruenbaum, Y. et al. (2000) *J Struct Biol* 129, 313-23.
7. Tollervey, D. et al. (1993) *Cell* 72, 443-57.

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Limited Uses

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