PRODUCT INFORMATION

Histone H2A (*Xenopus*, recombinant)

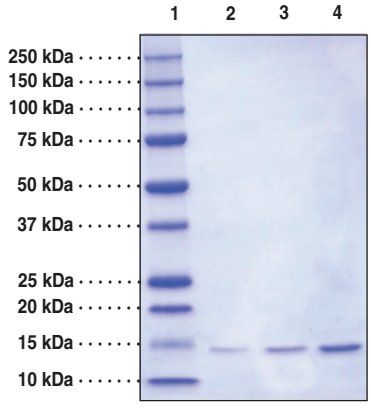
Item No. 10261

Overview and Properties

Source: Recombinant protein expressed in *E. coli*
Amino Acids: 2-130 (full length)
Uniprot No.: P06897
Molecular Weight: 13.9 kDa
Storage: -80°C (as supplied); avoid freeze/thaw cycles by aliquoting protein after resuspension
Stability: ≥1 year
Purity: ≥95% estimated by SDS-PAGE
Supplied as: A lyophilized powder

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Image



Lane 1: MW Markers
Lane 2: H2A (1 µg)
Lane 3: H2A (2 µg)
Lane 4: H2A (5 µg)

Representative gel image shown; actual purity may vary between each batch but protein will be ≥95% pure.

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Description

A nucleosome is the basic repeating unit of chromatin in which 146 base pairs of DNA wrap twice around an octamer of histones.[1] The octamer is composed of two of each histone H2A, H2B, H3, and H4. Histones H2A and H2B form a dimer. Histones H3 and H4 form a tetramer. The combination of two H2A/H2B dimers and one H3/H4 tetramer create the nucleosome core.[2] Histone H3 undergoes many modifications which include acetylation, phosphorylation, ubiquitylation, sumoylation, and biotinylation that are important for regulation of gene transcription.[1]

References

1. Bhaumik, S.R., Smith, E., and Shilatifard, A. Covalent modifications of histones during development and disease pathogenesis. *Nat. Struct. Mol. Biol.* **14(11)**, 1008-1016 (2007).
2. Tanaka, Y., Tawaramoto-Sasanuma, M., Kawaguchi, S., *et al.* Expression and purification of recombinant human histones. *Methods* **33(1)**, 3-11 (2004).

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