

# PRODUCT INFORMATION



## Core Histones (human)

Item No. 11010

### Overview and Properties

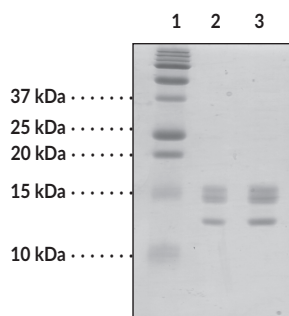
**Synonym:** HeLa Core Histones  
**Source:** Highly purified mixture of human core histones (H2A, H2B, H3, and H4) isolated via hydroxyapatite chromatography from HeLa S3 (human cervical adenocarcinoma) nuclear pellet.  
**Storage:** -80°C (as supplied)  
**Stability:** ≥6 months  
**Purity:** **batch specific** (≥90% estimated by SDS-PAGE)  
**Supplied in:** 50 mM sodium phosphate, pH 6.9, containing 10 mM sodium chloride and 1 mM β-mercaptoethanol

### Protein

**Concentration:** **batch specific** mg/ml

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

### Image



Lane 1: MW Markers  
Lane 2: Core Histones (1 µg)  
Lane 3: Core Histones (2 µg)

Representative gel image shown; actual purity may vary between each batch.

### Description

A nucleosome is the basic repeating unit of chromatin in which 146 base pairs of DNA wrap twice around a histone octamer consisting of two copies of each of the core histones, H2A, H2B, H3, and H4.<sup>1</sup> The combination of two H2A/H2B dimers and one H3/H4 tetramer create the nucleosome core.<sup>2</sup> Histone H3 undergoes many modifications which include acetylation, methylation, and phosphorylation that are important for regulation of gene transcription.<sup>1</sup>

### 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**, 3-11 (2004).

WARNING  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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