

Recombinant Human Mononucleosomes (H3.3)

Cat. No. NUC-044 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Mononucleosomes assembled from recombinant human histones expressed in E. coli.
Species	Human
Source	E.coli
Description	Mononucleosomes assembled from recombinant human histones expressed in E. coli (two each of histones H2A, H2B, H3 and H4. Accession numbers: H2A-P04908; H2B-O60814; H3.3-P84243; H4-P62805) wrapped by 147 base pairs of 601 positioning sequence DNA. The nucleosome is the basic subunit of chromatin. H3.3 is a histone variant, a non-allelic replacement histone found in regions of high chromatin turnover outside of S-phase (e.g. at actively transcribed genes). H3.3-H4 associates in vivo with the HIRA chaperone complex.
Form	Purified recombinant mononucleosomes (100 g total mass, protein+DNA, 54.6 g protein by) in 10 mM Tris-HCl pH 7.5, 1 mM EDTA, 25 mM NaCl, 2 mM DTT, & 20% glycerol.
Molecular Mass	200,253 Da
Applications	Mononucleosomes (H3.3), Human Recombinant are highly purified and are suitable for use as substrates in enzyme screening assays or for nucleosome binding experiments. The absence of post-translational histone modifications makes them ideal for conducting enzyme activity and screening assays. Mononucleosomes

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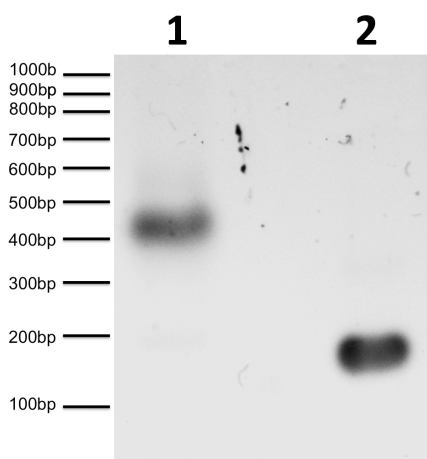
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(H3.3), Human Recombinant do not contain free DNA which could alter assayed activities.

Storage

Stable for six months at -80°C from date of receipt. For best results, aliquot and avoid multiple freeze/thaws.

DNA Gel Data



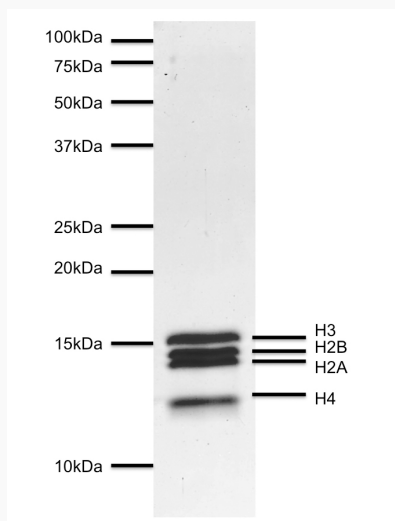
Mononucleosomes (H3.3), Human Recombinant run on an agarose gel and stained with ethidium bromide to visualize DNA. Lane 1: Intact nucleosomes (200 ng total, ~100 ng DNA and ~100 ng histone protein) run on gel. Lane 2: DNA extracted from nucleosomes (400 ng). Intact nucleosomes migrate much higher than free DNA, thus the DNA resolves at a higher molecular weight when nucleosome-bound. Note absence of free DNA in Lane 1, indicating all DNA complexed with histones.

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Protein Gel Data



Coomassie stained PAGE gel of proteins in Mononucleosomes (H3.3), Human Recombinant (1 μ g) to demonstrate the purity and integrity of the histones in the preparation. Sizes of molecular weight markers and positions of the core histones (H2A, H2B, H3 and H4) are indicated.

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