

Recombinant Human Mononucleosomes (H3.3G34R), Biotinylated

Cat. No. NUC-049 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human histone H3.3 (H3F3A, H3.3A, H3F3, accession P84243) containing an arginine at position 34, expressed in E. coli.
Species	Human
Source	E.coli
Description	Recombinant human histone H3.3 (H3F3A, H3.3A, H3F3, accession P84243) containing an arginine at position 34, expressed in E. coli. Histone H3 is one of the four proteins that are present in the nucleosome, the basic repeating unit subunit of chromatin, consisting of 147 base pairs of DNA containing a 5' biotin-TEG group wrapped around an octamer of core histone proteins (H2A, H2B, H3 and H4). 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).
Form	Mononucleosomes (H3.3G34R), Recombinant Human (27.3 g protein weight, 50 g DNA+protein) in 10mM Tris HCl, pH 7.5, 25mM NaCl, 1 mM EDTA, 2mM DTT, 20% glycerol.
Molecular Mass	199,905.2 Da
Applications	Mononucleosomes (H3.3G34R), Recombinant Human 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

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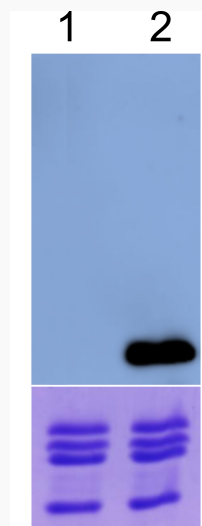
ideal for conducting enzyme activity and screening assays. Mononucleosomes (H3.3G34R), Recombinant Human do not contain free DNA which could alter assayed activities.

Storage

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

Conjugation

Biotin

Western Blot Data


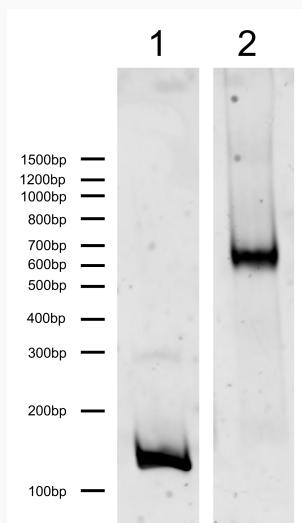
Western analysis of Mononucleosomes (H3.3G34R), Recombinant Human. Top Panel: Unmodified H3.3(Lane 1) and H3.3G34R containing nucleosomes (Lane 2) were probed with an anti-H3 G34R antibody. Only the H3.3G34R sample produced a detectable signal. Bottom Panel: Detail from Coomassie stained gel of Western blot.

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DNA Gel Data



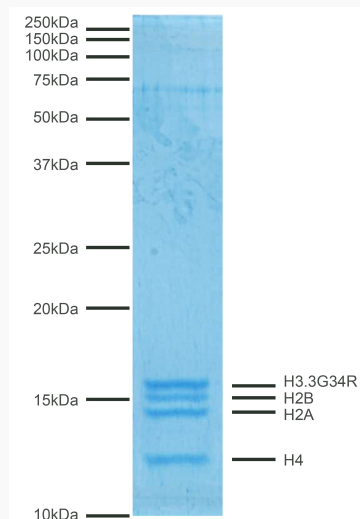
Mononucleosomes (H3.3G34R), Recombinant Human resolved via native PAGE and stained with ethidium bromide to visualize DNA. Lane 1: Free DNA (100 ng) Lane 2: Intact nucleosomes (400 ng). Nucleosomal DNA migrates much higher than free DNA, thus the DNA resolves at a higher molecular weight when nucleosome-bound. 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 (H3.3G34R), Recombinant Human (1 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, H3.3G34R and H4) are indicated.

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