

Technical Datasheet

rNuQ H3.3 Recombinant Mononucleosome Biotinylated

Part number: NUC0059

Species: Human

Source: *E. coli* and synthetic DNA

Description:

Recombinant nucleosomes were assembled *in vitro* using a 147 bp of 601 [1] positioning sequence DNA, with the 5' strand biotinylated, and four core histones (H2A, H2B and H4) purified from *E. coli* inclusion bodies, and synthetic H3.3.

Buffer composition:

Triethanolamine hydrochloride - NaCl - EDTA - Azide.

Applications:

Human recombinant mononucleosomes are suitable for chromatin remodeling and accessibility studies, post-translational modifications (PTM)-specific antibody validation [2], chromatin research [3], as well as nucleosome binding assays in drug discovery and high-throughput screening (HTS) applications [4,5].

Validation data:

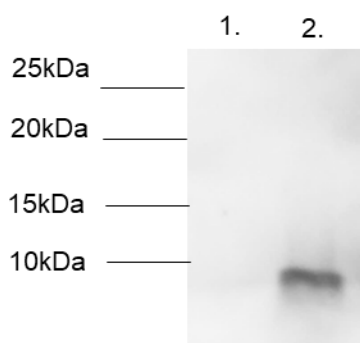


Figure 1: Western blot analysis of rNuQ H3.3 biotinylated mononucleosome versus unmodified H3.1 mononucleosome. Lane 1 contains unmodified rNuQ H3.1 recombinant mononucleosomes (200ng; Volition, NUC0001), and Lane 2 contains rNuQ H3.3 biotinylated (200ng; Volition, NUC0059). Probing with an anti-H3.3 antibody followed by enhanced chemiluminescence (ECL) detection reveals a signal only in the rNuQ H3.3 recombinant mononucleosome biotinylated.

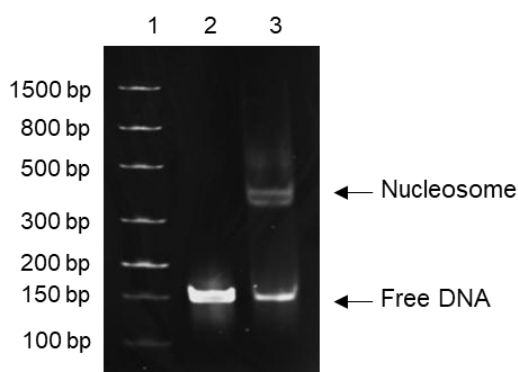


Figure 2: Native PAGE analysis of rNuQ H3.3 mononucleosomes biotinylated. Lane 1 contains the DNA ladder, lane 2 shows free 147bp 601 DNA, and lane 3 shows intact rNuQ H3.3 nucleosomes biotinylated (500 ng). Samples were resolved on a native PAGE gel and stained with Midori Green to visualize the DNA. Intact nucleosomes, in lane 3, display reduced mobility relative to free DNA, consistent with correct nucleosome assembly.

