Histone H2A/H2B Dimer Human, Recombinant

M2508S

2 nmol 20 µM Lot: 0021407
RECOMBINANT Store at –20°C Exp: 7/15

Description: Histone H2A combines with Histone H2B to form the H2A/H2B heterodimer. Two H2A/H2B heterodimers interact with an H3/H4 tetramer to form the histone octamer (1,2). Histones are also modified by various enzymes and can act as substrates for them. These modifications have been shown to be important in gene regulation. Because the histones are folded with their subunit partners, the dimer may be a better substrate for specific enzymes and modifications (3).

Source: Purified H2A and H2B (NEB #M2502 and NEB #M2505) were denatured, refolded and purified by gel filtration.

Note: To use as a substrate in an enzyme modification assay or other salt sensitive protocol, use 1 to 2 µl of the dimer in a minimum 20 µl reaction so that the salt concentration in the reaction ≤ 200 mM.

SDS-PAGE analysis of Histone H2A/H2B Dimer Human, Recombinant.
Lane 1 & 7: NEB Protein Ladder (NEB #P7703)
Lane 2: Histone H2A (NEB #M2502S)
Lane 3: Histone H2B (NEB #M2505S)
Lane 4–6: 2, 4, 8 µg Histone H2A/H2B Dimer

Endonuclease Assay: Incubation of a 50 µl reaction containing 10 µg (~360 pmol) of Histone H2A/H2B Dimer Human, Recombinant with 1 µg of X174 RF I (supercoiled) plasmid DNA for 4 hours at 37°C resulted in < 5.0% conversion to RF II form (nicked circle) as determined by agarose gel electrophoresis.

References:
3. Mersha, F., unpublished observations