

## Histone H2B 1.1 Protein, *Xenopus laevis*

Cat. No.:	HY-P72331
Synonyms:	H2B1.1
Species:	<i>Xenopus laevis</i>
Source:	<i>E. coli</i>
Accession:	P02281 (A2-K123)
Gene ID:	446588
Molecular Weight:	Approximately 13.5 kDa

### PROPERTIES

AA Sequence	A K S A P A P K K G    S K K A V T K T Q K    K D G K K R R K T R    K E S Y A I Y V Y K V L K Q V H P D T G    I S S K A M S I M N    S F V N D V F E R I    A G E A S R L A H Y N K R S T I T S R E    I Q T A V R L L L P    G E L A K H A V S E    G T K A V T K Y T S A K
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of ddH <sub>2</sub> O, pH 7.0.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

Background	<p>Histone H2B 1.1 is an essential core component of the nucleosome, a fundamental structure that orchestrates the wrapping and compaction of DNA into chromatin, restricting DNA accessibility to cellular machineries reliant on DNA as a template. Histones, including H2B 1.1, assume a central role in pivotal cellular processes such as transcription regulation, DNA repair, DNA replication, and the maintenance of chromosomal stability. The intricate regulation of DNA accessibility involves a sophisticated network of post-translational modifications collectively known as the histone code, as well as dynamic nucleosome remodeling. The nucleosome, a histone octamer, consists of two molecules each of H2A, H2B, H3, and H4, assembled in one H3-H4 heterotetramer and two H2A-H2B heterodimers. This octamer efficiently wraps approximately 147 base pairs of DNA, highlighting its crucial role in organizing chromatin structure and facilitating key genomic functions.</p>
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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