Histone H2B, Aa29-35 Peptide – Synthetic Peptide, ~90% by HPLC and MS analysis Purity

PRODUCT OVERVIEW

Product Name	Histone H2B, aa29-35 (HTB2), Peptide
Full Product Name	Histone H2B, aa29-35
Product Gene Name	HTB2 peptide
Form/Format	Supplied as a lyophilized powder.
Purity/Purification	Highly Purified ~90% by HPLC and MS analysis
Preparation and Storage	Lyophilized powder may be stored at 4 degree C for short-term only. Stable for 12 months at -20 degree C. Reconstitute to nominal volume (see reconstitution instructions for peptides) and store at -20 degree C. For maximum recovery of product, centrifuge the original vial prior to removing the cap. Further dilutions can be made in assay buffer.
Molecular Weight	957D
Chromosome Location	Chromosome: 5; NC_003076.8 (7651957..7652622, complement). Location: chromosome: 5
Sequence (linear)	Arg-Lys-Arg-Ser-Arg-Lys-Glu-OH
Amino Acid Analysis	Confirms expected sequence Peptide Content: 80 ± 4%
Solubility	H2O
Product Categories/Family for HTB2 peptide	Molecular Biology; MB-Histones
Related Product Information for HTB2 peptide	MBS658703 is a peptide targeting HTB2. Also known as Histone H2B, aa29-35. Protein kinase G (PKG) substrate
Other Notes	Small volumes of HTB2 peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for HTB2. It may not necessarily be applicable to this product.

NCBI GI #	15237148
NCBI GeneID	832352
NCBI Accession #	NP_197679.1
UniProt Primary Accession #	Q9FFC0
UniProt Secondary Accession #	Q96516
UniProt Related Accession #	Q9FFC0
GenBank Nucleotide #	NM_122194.2
NCBI Official Full Name	histone H2B
NCBI Official Symbol	HTB2

NCBI Official Synonym Symbols	H2B; histone B2; HISTONE H2B; HTB2; MRN17.11; MRN17_11
UniProt Protein Name	Histone H2B.10
UniProt Synonym Protein Names	HTB2
UniProt Entry Name	H2B10_ARATH
NCBI Protein Information	histone H2B
UniProt Comments for HTB2	Function: Core component of nucleosome. Nucleosomes wrap and compact DNA into chromatin, limiting DNA accessibility to the cellular machineries which require DNA as a template. Histones thereby play a central role in transcription regulation, DNA repair, DNA replication and chromosomal stability. DNA accessibility is regulated via a complex set of post-translational modifications of histones, also called histone code, and nucleosome remodeling. Subunit structure: The nucleosome is a histone octamer containing two molecules each of H2A, H2B, H3 and H4 assembled in one H3-H4 heterotetramer and two H2A-H2B heterodimers. The octamer wraps approximately 147 bp of DNA. Interacts with ORTH2. Ref.4 Subcellular location: Nucleus By similarity. Chromosome By similarity. Post-translational modification: Can be acetylated to form H2BK5ac, H2BK10ac, H2BK15ac, H2BK27ac, H2BK33ac and H2BK34ac.Dimethylated to form H2BK11me2. Ref.6Monoubiquitinated by BRE1 to form H2BK143ub1 and deubiquitinated by UBP26. Required for heterochromatic histone H3 di- and trimethylation at H3K4me. May give a specific tag for epigenetic transcriptional activation. Sequence similarities: Belongs to the histone H2B family. Caution: To ensure consistency between histone entries, we follow the 'Brno' nomenclature for histone modifications, with positions referring to those used in the literature for the 'closest' model organism. Due to slight variations in histone sequences between organisms and to the presence of initiator methionine in UniProtKB/Swiss-Prot sequences, the actual positions of modified amino acids in the sequence generally differ. In this entry the following conventions are used: H2BK6ac = acetylated Lys-6; H2BK11ac = acetylated Lys-11; H2BK12me2 = dimethylated Lys-12; H2BK16ac = acetylated Lys-16; H2BK27ac = acetylated Lys-28; H2BK33ac = acetylated Lys-34; H2BK34ac = acetylated Lys-35; H2BK143ub1 = monoubiquitinated Lys-141.
Research Articles on HTB2	**1.** Role of histone H2B deubiquitination in the activation of gene expression and the perturbation of histone H2B deubiquitination in the timing of the floral transition in Arabidopsis.
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