

Product Data Sheet

ASF1B Protein, Human (sf9, His)

Cat. No.: HY-P76157

Synonyms: Histone chaperone ASF1B; hAsf1b; CCG1-interacting factor A-II; CIA-II

Species: Human

Source: Sf9 insect cells
Accession: Q9NVP2 (M1-I202)

Gene ID: 55723

PROPERTIES

Molecular Weight: Approximately 20 kDa.

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Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 20 mM Tris, 500 mM NaCl, pH 7.4, 10% Glycerol. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu g/mL$ in ddH $_2$ O.
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.

Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

Shipping

ASF1B Protein, a key histone chaperone, plays a crucial role in facilitating histone deposition and orchestrating histone exchange and removal during nucleosome assembly and disassembly, as evidenced by various studies. Collaborating with chromatin assembly factor 1 (CAF-1), ASF1B contributes to the promotion of replication-dependent chromatin assembly. Additionally, ASF1B is involved in the nuclear import of the histone H3-H4 dimer alongside importin-4 (IPO4), displaying a specific recognition and binding affinity for newly synthesized histones marked with H3K9me1 and H4K5K12ac in the cytosol. Notably, ASF1B does not participate in replication-independent nucleosome deposition, a process mediated by ASF1A and HIRA. Beyond its role in chromatin dynamics, ASF1B is required for gonad development. Interactions with histone H3 (including both H3.1 and H3.3) and histone H4, as well as with partner proteins such as CHAF1A, CHAF1B, RBBP4, HAT1, NASP, TAF1, CDAN1, IPO4, and CREBBP, further highlight the multifaceted functions of ASF1B in cellular processes. ASF1B is also found in a cytosolic complex with IPO4 and histones H3 and H4.

Page 1 of 2 www.MedChemExpress.com

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

Tel: 609-228-6898 Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA

Page 2 of 2 www.MedChemExpress.com