TFIIF-associating CTD phosphatase Protein, Mouse (Myc, His)

Cat. No.:	HY-P71579
Synonyms:	Ctdp1; Fcp1; RNA polymerase II subunit A C-terminal domain phosphatase; EC 3.1.3.16; TFIIF-associating CTD phosphatase
Species:	Mouse
Source:	E. coli
Accession:	Q7TSG2 (178H-341R)
Gene ID:	67655
Molecular Weight:	Approximately 24.0 kDa

PROPERTIES

AA Sequence	H R N R K L V L M V D L D Q T L I H T T E Q H C P Q M S N K G I F H F Q L G R G E P M L H T R L R P H C K D F L E K I A K L Y E L H V F T F G S R L Y A H T I A G F L D P E K K L F S H R I L S R D E C I D P F S K T G N L R N L F P C G D S M V C I I D D R E D V W K F A P N L I T V K K Y V Y F P G T G D V N A P P A A R E T Q A R
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against solution in Tris-based buffer, 50% glycerol.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
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	The TFIIF-associating CTD phosphatase appears to have a critical role in promoting the activity of RNA polymerase II by processively dephosphorylating 'Ser-2' and 'Ser-5' residues within the heptad repeats YSPTSPS in the C-terminal domain of the largest RNA polymerase II subunit. This enzymatic activity enhances the functionality of RNA polymerase II, suggesting its involvement in transcriptional processes. Additionally, the protein contributes to the exit from mitosis by dephosphorylating key mitotic substrates, including USP44, CDC20, and WEE1, which are essential for the inactivation of M-phase-promoting factor (MPF)/CDK1. This dual role underscores the regulatory significance of the TFIIF-associating CTD phosphatase in coordinating both transcriptional and cell cycle processes.

Caution: Product has not been fully validated for medical applications. For research use only.

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