



Recombinant Protein Technical Manual

Recombinant Human Cyclin-H/CCNH Protein (His Tag)

RPE1542

Product Data:

Product SKU: RPE1542

Size: 10µg

Species: Human

Expression host: E. coli

Uniprot: P51946

Protein Information:

Molecular Mass: 39.8 kDa

AP Molecular Mass: 39 kDa

Tag: N-6His

Bio-activity:

Purity: > 90 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.

Shipping: This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < -20°C.

Formulation: Supplied as a 0.2 µm filtered solution of 20mM Tris, 100mM NaCl, 2mM EDTA, 2mM DTT, 30% Glycerol, pH 8.5.

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Cyclin-H; CCNH; MO15-associated protein; p34; p37

Immunogen Information:

Sequence: Met 1-Leu323

Background:

Human CCNH, also known as Cyclin-H, MO15-associated protein, p34 and p37, is a protein which belongs to the highly conserved cyclin family. Cyclin family members are characterized by a dramatic periodicity in protein abundance through the cell cycle. Different cyclins exhibit distinct expression and degradation patterns which contribute to the temporal coordination of each mitotic event. This cyclin forms a complex with CDK7 kinase and ring finger protein MAT1. CCNH regulates CDK7 which is the catalytic subunit of the CDK-activating kinase (CAK) enzymatic complex. CAK activates the cyclin-associated kinases CDK1, CDK2, CDK4 and CDK6 by threonine phosphorylation. CAK complexed to the core-TFIID basal transcription factor activates RNA polymerase II by serine phosphorylation of the repetitive C-terminal domain (CTD) of its large subunit (POLR2A), allowing its escape from the promoter and elongation of the transcripts. CCNH is also involved in cell cycle control and in RNA transcription by RNA polymerase II. Its expression and activity are constant throughout the cell cycle.