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Recombinant Human CDK7/CCNH/MNAT1 complex Active GST-His

Catalog No.	CRC039A	**Quantity:**	10 µg

Alternate Names: CAK

Description: Coexpression of human CDK7, amino acids M_1-F_{346} (as in GenBank entry NM_001799)*, N-terminally fused to GST-HIS_6-Thrombin cleavage site and human CycH, amino acids M1-L323 (as in GenBank entry NM_001239)*, and human MAT1, amino acids M_1-S_{309} (as in GenBank entry NM_002431)*, both N-terminally fused to HIS_6-Thrombin cleavage site.
*Sequence may contain documented polymorphisms
Detailed sequence on request

Concentration: 0.139 µg/µl

Gene ID: 1022/902/4331

Protein Accession No: NM_001239

Source: Baculovirus infected Sf9 cells

Molecular Weight: Theoretical $MW_{GST\text{-}CDK7}$: 68,934 Da
Theoretical $MW_{CycH:}$ 42,400 Da
Theoretical MW_{MAT1}: 40,579 Da

Formulation: 50 mM Tris-HCl + pH 8.0 + 100 mM NaCl + 5 mM DTT + 4 mM reduced glutathione, 20% glycerol

Purification: One-step affinity purification using GSH-agarose

Product Identity: CDK7/CycH/MAT1, was confirmed as CDK7/CycH/MAT1 by specific Western Blotting

Specific Activity: 22 pmol/µg×min
Method for determination of K_m value and specific activity:
Assay conditions:
60 mM HEPES-NaOH, pH 7.5
3 mM $MgCl_2$
3 mM $MnCl_2$
3 µM Na-orthovanadate
1.2 mM DTT
2.5 µg / 50 µl $PEG_{20.000}$
ATP (variable)
Substrate: Rb-CTF, 10 µg / 50 µl
Recombinant CDK7/CycH/MAT1: 200 ng / 50 µl
• Filter binding assay MSFC membrane (Millipore)

Storage & Stability: Store in working aliquots at -80°C. **Avoid repeated freeze-thaw cycles.**

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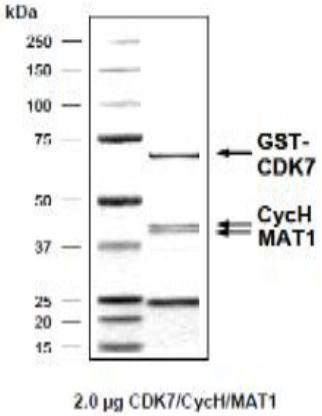
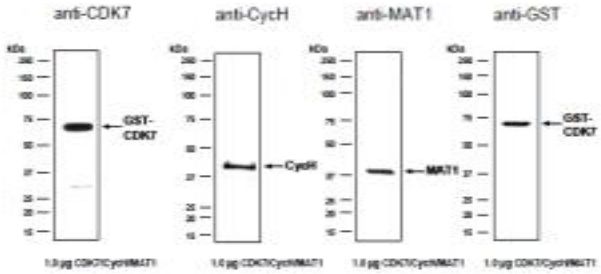
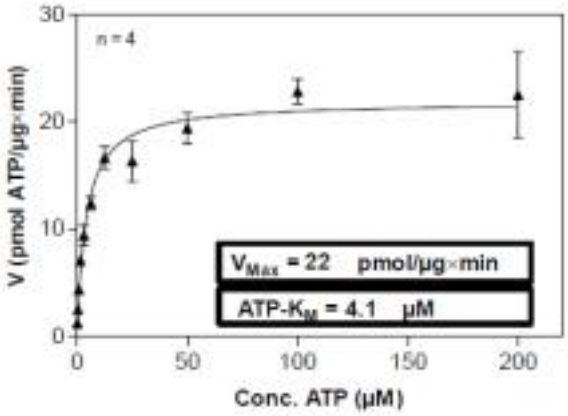


Coomassie stain:



Western blot analysis:



Determination of K_m value for ATP:

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