Certificate of Analysis

REACTION BIOLOGY

ProQinase™ STK32A

serine/threonine kinase 32A

Recombinant Human Active Protein Kinase

HGNC Symbol: STK32A

Synonyms: MGC22688, YANK1

Product No.: 2205-0000-1

Lot: 002

Description: Human STK32A, full length, amino acids M_1-L_{396} (as in NCBI/Protein entry NP_001106195.1), N-terminal GST-HIS_6 fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

Product identity: STK32A Lot 002, has been verified by mass spectrometry LC-ESI-MS/MS

Theoretical $MW_{Fusion\ Protein}$: 74459 Da

Expression host: Sf9 insect cells

Purification: GST-Affinity Chromatography

Activation: This kinase was not activated by special procedures

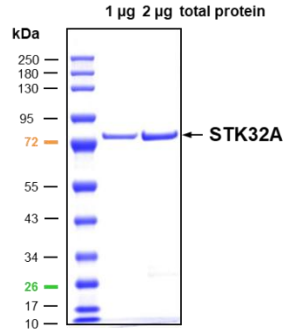
Storage buffer: 50 mM HEPES pH 7.5, 100 mM NaCl, 5 mM DTT, 15 mM reduced glutathione, 20 % glycerol

Storage temperature: -80°C
For complete recovery, mix well and spin before use. Product must not be stored in diluted solutions, aliquots below 10µl are not advisable. Avoid repeated freeze-thaw cycles!

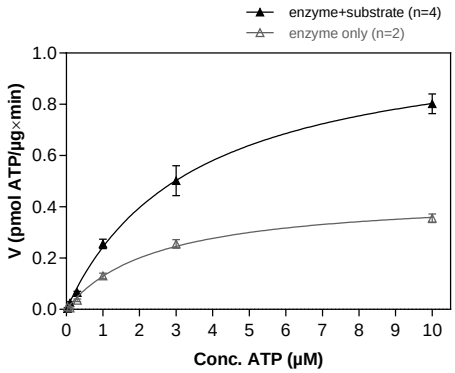
Protein concentration: 0.495 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:
Specific kinase activity (P_i transfer): 1.1 pmol/µg*min
ATP-K_M: 3.4 µM

STK32A Lot 002:
Coomassie stain



STK32A Lot 002:
Determination of V_{max} and K_M value for ATP



- 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
  50 µg/ml $PEG_{20.000}$
  ATP (variable)
  Substrate: Casein 20 µg/ml
  Kinase: 2 µg/ml

Assay technology:
Radiometric filter binding assay
MSFC membrane (96 well plate, Millipore)

Recombinant Proteins

Sequence information

GST-STK32A Recombinant Fusion Protein Amino Acid Sequence

```
   1  MSPILGYWKI KGLVQPTRLL LEYLEEKYEE HLYERDEGDK WRNKKFELGL EFPNLPYYID   60
  61  GDVKLTQSMA IIRYIADKHN MLGGCPKERA EISMLEGAVL DIRYGVSRIA YSKDFETLKV  120
 121  DFLSKLPEML KMFKDRLCHK TYLNGDHVTH PDFMLYDALD VVLYMDPMCL DAFPKLVCFK  180
 181  KRIEAIPQID KYLKSSKYIA WPLQGWQATF GGGDHPPKSD PMGHHHHHHG RDSLEVLFQG  240
 241  PMGANTSRKP PVFDENEDVN FDHFEILRAI GKGSFGKVCI VQKNDTKKMY AMKYMNKQKC  300
 301  VERNEVRNVF KELQIMQGLE HPFLVNLWYS FQDEEDMFMV VDLLLGGDLR YHLQQNVHFK  360
 361  EETVKLFICE LVMALDYLQN QRIIHRDMKP DNILLDEHGH VHITDFNIAA MLPRETQITT  420
 421  MAGTKPYMAP EMFSSRKGAG YSFAVDWWSL GVTAYELLRG RRPYHIRSST SSKEIVHTFE  480
 481  TTVVTYPSAW SQEMVSLLKK LLEPNPDQRF SQLSDVQNFP YMNDINWDAV FQKRLIPGFI  540
 541  PNKGRLNCDP TFELEEMILE SKPLHKKKKR LAKKEKDMRK CDSSQTCLLQ EHLDSVQKEF  600
 601  IIFNREKVNR DFNKRQPNLA LEQTKDPQGE DGQNNNL                           660
```

1-218: GST **Red:** HIS6-tag **Green:** 3C cleavage site **blue**: STK32A

STK32A wt[1] Amino Acid Sequence

```
   1  MGANTSRKPP VFDENEDVNF DHFEILRAIG KGSFGKVCIV QKNDTKKMYA MKYMNKQKCV   60
  61  ERNEVRNVFK ELQIMQGLEH PFLVNLWYSF QDEEDMFMVV DLLLGGDLRY HLQQNVHFKE  120
 121  ETVKLFICEL VMALDYLQNQ RIIHRDMKPD NILLDEHGHV HITDFNIAAM LPRETQITTM  180
 181  AGTKPYMAPE MFSSRKGAGY SFAVDWWSLG VTAYELLRGR RPYHIRSSTS SKEIVHTFET  240
 241  TVVTYPSAWS QEMVSLLKKL LEPNPDQRFS QLSDVQNFPY MNDINWDAVF QKRLIPGFIP  300
 301  NKGRLNCDPT FELEEMILES KPLHKKKKRL AKKEKDMRKC DSSQTCLLQE HLDSVQKEFI  360
 361  IFNREKVNRD FNKRQPNLAL EQTKDPQGED GQNNNL                            420
```

blue: STK32A sequence expressed in recombinant protein

[1]NCBI/Protein accession number NP_001106195.1

Recombinant Proteins