

Certificate of Analysis

GAK, 10 µg

Recombinant Human GAK

ThermoFisher
SCIENTIFIC

Part Number: A30973

Lot Number: 3112866

Immediate Storage: -80°C

Shipping Conditions: dry ice

5781 Van Allen Way

Carlsbad, CA 92008

Phone: 760.603.7200

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Description:

Recombinant human GAK (1-396) was expressed in insect cells using a N-terminal GST tag.

GAK Cyclin-G-associated kinase is a serine/threonine protein kinase and was originally identified as a protein that is associated with cyclin G. However, neither CDK5 nor GAK kinase activity is activated by cyclin G nor does GAK affect CDK5 kinase activity. GAK seems to act as an auxilin homolog that is involved in the uncoating of clathrin-coated vesicles by Hsc70 in non-neuronal cells. Expression oscillates slightly during the cell cycle, peaking at G1.

Accession Number:

The gene accession number for GAK is NP_005246.2.

Specific Activity:

Based on an activity assay, no activity claims can be made regarding this kinase. This kinase may or may not be suitable for an activity assay.

Concentration:

0.1 mg/mL total protein as measured using the Bradford protein assay with BSA as a standard.

Calculated **1,420 nM**.

Aliases:

DNAJ26; DNAJC26

Storage and Handling:

For maximum recovery please spin prior to use. Unless noted below, aliquots of the 5 µg, 10µg and 20µg sizes of kinase are not recommended as materials can be used in original packaging until exhausted. For larger sizes, the number of freeze/thaws may be reduced by preparing aliquots, aliquots below 20 µL are not recommended. **Please never store a kinase diluted.** If properly stored at -80°C, this product is guaranteed for 6 months from date of purchase.

Storage Buffer:

50 mM Tris-HCl (pH 7.5), 150 mM NaCl, 10mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF and 25% Glycerol.

QUALITY ASSURANCE

Gel Information for GAK

Page Description: Run on an SDS-PAGE gel and stained with Coomassie®.

Lane 1: Molecular Weight markers as labeled.

Lane 2: GAK



Purity:

> 90% as determined by a Coomassie® blue stained SDS-PAGE gel.

Molecular Weight:

70.2 kDa. Calculated from the protein sequence(s).

Protein sequence alignment with reference sequence(s)

GenBank Accession Number: NP_005246.2

1 MSPILGYWKIKGLVQPTRLLLEYLEEKYEHLVERDEGDKWRNKKFELGLEFPNLPYYIDGDVKLTQSMAIIRYIADKHNMLGGCPKERAISMLEGAVL GST
1 MSPILGYWKIKGLVQPTRLLLEYLEEKYEHLVERDEGDKWRNKKFELGLEFPNLPYYIDGDVKLTQSMAIIRYIADKHNMLGGCPKERAISMLEGAVL Life GAK
1 MS-----NP_005246.2

101 DIRYGVSRIAYSKDFETLKVDFLSKLPEMLKMFEDRLCHKTYLNGDHVTHPDFMLYDALDVVLYMDPMCLDAFPKLVCFKKRIEAIPIQIDKYLKSSKYIA
101 DIRYGVSRIAYSKDFETLKVDFLSKLPEMLKMFEDRLCHKTYLNGDHVTHPDFMLYDALDVVLYMDPMCLDAFPKLVCFKKRIEAIPIQIDKYLKSSKYIA
3 -----

201 WPLQGWQATFGGGDHPKSD
201 WPLQGWQATFGGGDHPKSDLVPRGMSLLQSALDFLAGPGSLGGASGRDQSDFVGQTVELGELRLRVRRVLAEGGFAFVYEAQDVGSGREYALKRLLSN
3 -----LLQSALDFLAGPGSLGGASGRDQSDFVGQTVELGELRLRVRRVLAEGGFAFVYEAQDVGSGREYALKRLLSN

220
301 EEEKNRAIIQEVCFMKKLSGHPNIVQFCSAASIGKEESDTGQAEFLLLTELCKGQLVEFLKKMESRGPLSCDTVLKIFYQTCRAVQHMHRQKPPIIHRDL
75 EEEKNRAIIQEVCFMKKLSGHPNIVQFCSAASIGKEESDTGQAEFLLLTELCKGQLVEFLKKMESRGPLSCDTVLKIFYQTCRAVQHMHRQKPPIIHRDL

220
401 KVENLLLSNQGTIKLCDFGSATTISHYPDYSWSAQRRLVEEEITRNTTPMYRTPEIIDLYSNFPIGEKQDIWALGCILYLLCFRQHPFEDGAKLRIVNG
175 KVENLLLSNQGTIKLCDFGSATTISHYPDYSWSAQRRLVEEEITRNTTPMYRTPEIIDLYSNFPIGEKQDIWALGCILYLLCFRQHPFEDGAKLRIVNG

220
501 KYSIPPHDTQYTVFHSIRAMLQVNPEERLSIAEVVHQLQEIAAARNVNPSPITELLEQNGGYGSATLSRGPPPPVGPAGSGYSGGLALAEYDQPYGGF
275 KYSIPPHDTQYTVFHSIRAMLQVNPEERLSIAEVVHQLQEIAAARNVNPSPITELLEQNGGYGSATLSRGPPPPVGPAGSGYSGGLALAEYDQPYGGF

220
601 LDILRGGTERLFTNLKDTSSKV
375 LDILRGGTERLFTNLKDTSSKV

* highlighted residues denote differences from the reference protein sequence(s).



Chevojn Joseph, Director, Quality

Date: 28/Jan/2025

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