Certificate of Analysis

GAK, active

Expression System: **(Recombinant enzyme expressed in Sf21 insect cells)**

Catalog Numbers: **16-055, 16-055-K, 16-055M**

Parent Lot Number: **D21NP008N**

Product Description
N-terminal FLAG-tagged and N-terminal 6His-tagged, recombinant, human GAK amino acids 12-347 expressed by baculovirus in Sf21 insect cells. Purified using immobilized metal affinity chromatography. Molecular Weight = 40.2 kDa.

Purity
90% by SDS-PAGE and Coomassie blue staining.

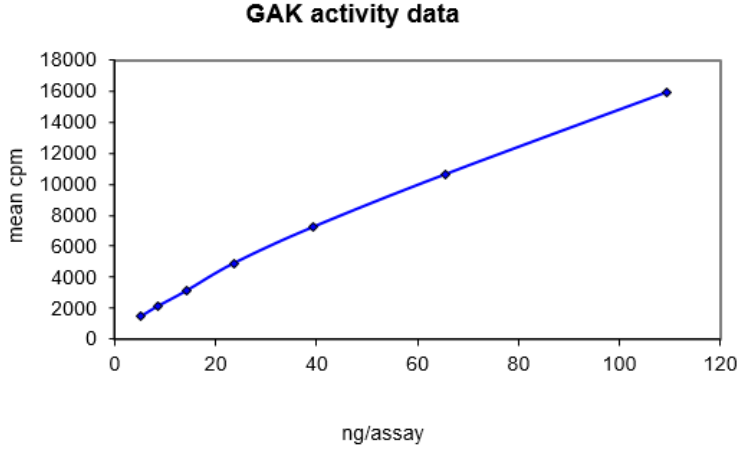
Specific Activity
Parent lot# D21NP008N: 27 U/mg, where one unit of GAK, active activity is defined as 1 nmol phosphate incorporated into 0.2 mg/ml histone H3 per minute at 30°C with a final ATP concentration of 100 µM.

Formulation
1.75 mg/ml of enzyme in 50 mM Tris/HCl pH 7.5, 300 mM NaCl, 0.1 mM EGTA, 0.03% Brij-35, 270 mM sucrose, 1 mM benzamidine, 0.2 mM PMSF, 0.1% 2-mercaptoethanol. Frozen solution.

Storage and Stability
On receipt of material store at store at -70°C. Unopened reagent is stable for a minimum of 1 year from date of shipment when stored at recommended storage temperature. Avoid repeat freeze/thaw cycles. For maximum recovery of product, centrifuge original vial prior to removing the cap.

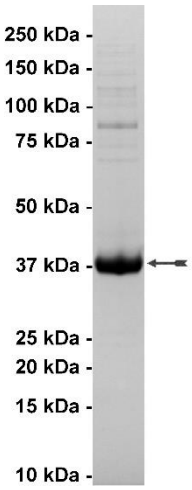
Handling Recommendations
Rapidly thaw the vial under cold water and immediately place on ice. Aliquot unused material into pre-chilled micro-centrifuge tubes and immediately snap-freeze the vials in liquid nitrogen prior to re-storage at store at -70°C.

Quality Control Testing
Kinase Assay:
5.1–109 ng of this lot of enzyme phosphorylated 0.2 mg/ml histone H3 in a radiometric kinase assay. Assay background was subtracted from the actual counts to yield the results shown below.



MS Tryptic Fingerprint:
Confirmed identity as GAK, active with the translated sequence.

SDS-PAGE and Coomassie Stain: Purity was assessed by SDS-PAGE and Coomassie blue staining using 3 µg of GAK, active.



The data presented in this document apply to the parent lot shown above and to all pack sizes derived from subsequent vialling runs of this parent lot. An alphabetical suffix after the parent lot number is used to denote each vialling run.

Sequence Information

Species Protein	Human GAK
Tags	N-terminal FLAG and N-terminal 6His
Native sequence	A22 of the recombinant protein is equivalent to A12 of human GAK
Accession number	GenBank NM_005255.4

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