

## 32-6982: GUK1 Human, Active

**Application :** Functional Assay  
**Alternative Name :** GMK, GMP kinase.

### Description

Source: Escherichia Coli.

Sterile Filtered colorless clear solution.

GUK1 is part of the guanylate kinase family. GUK1 occurs as a monomer that catalyzes the ATP-dependent conversion of GMP to GDP, thus takes an important part in the recycling of GMP. Through its catalytic activity, GUK1 functions in regulation of the supply of guanine nucleotides to signal transduction pathways. GUK1 overexpression is related with pituitary adenocarcinomas, implicating that GUK1 has a role in tumorigenesis.

GUK1 Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 217 amino acids (1-197 a.a.) and having a total molecular mass of 23.9 kDa. GUK1 is fused to a 20 amino acid His Tag at N-terminus and is purified by proprietary chromatographic techniques.

### Product Info

<b>Amount :</b>	2 µg / 10 µg
<b>Purification :</b>	Greater than 90.0% as determined by SDS-PAGE.
<b>Content :</b>	The GUK1 1mg/ml protein solution contains 20mM Tris-HCl pH-8, 1mM DTT, 0.1M NaCl and 10% Glycerol.
<b>Storage condition :</b>	Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please avoid freeze thaw cycles.
<b>Amino Acid :</b>	MGSSHHHHHH SSGLVPRGSH MSGPRPVVLS GPSGAGKSTL LKRLQEHSG IFGFSVSHTT RNPRPGEENG KDYYFVTREV MQRDIAAGDF IEHAEFSGNL YGTSKVAVQA VQAMNRCVL DVDLQGVVNI KATDLRPIYI SVQPPSLHVL EQRLRQRNTE TEESLVKRLA AAQADMESK EPGLFDVVII NDSLDQAYAE LKEALSEEIK KAQRTGA.

### Application Note

Specific activity is > 100 units/mg and is defined as the amount of enzyme that convert 1.0 umole of GMP and ATP to GDP and ADP per minute at pH 7.5 at 37C in coupled system with PK/LDH.