

## Glycerokinase from Microorganism

### Product Information

<b>Cat#</b>	DIA-149
<b>Abbr</b>	GK (Microorganism)
<b>Alias</b>	GK
<b>Similar</b>	Glycerokinase
<b>Source</b>	Microorganism
<b>Description</b>	Glycerol kinase is a phosphotransferase enzyme involved in triglycerides and glycerophospholipids synthesis. Glycerol kinase catalyzes tge MgATP-dependent phosphorylation of glycerol to produce sn-glycerol-3-phosphate and is the rate limiting enzyme in the utilization of glycerol. It is also subject to feedback regulation by fructose-1,6-bisphosphate.
<b>Applications</b>	This enzyme is useful for enzymatic determination of glycerol and triglyceride when coupled with glycerol-3-phosphate dehydrogenase, glycerol-3-phosphate oxidase or pyruvate kinase and lactate dehydrogenase, lipoprotein lipase in clinical analysis.
<b>Appearance</b>	White amorphous powder, lyophilized
<b>Form</b>	Freeze dried powder
<b>Enzyme Commission Number</b>	EC 2.7.1.30
<b>Activity</b>	30 U/mg-solid or more
<b>CAS No.</b>	9030-66-4
<b>Contaminants</b>	Catalase < 1.0×10 <sup>-1</sup> % NADH oxidase < 1.0×10 <sup>-3</sup> % Adenosine triphosphatase < 1.0×10 <sup>-3</sup> %
<b>Isoelectric point</b>	4.3
<b>pH Stability</b>	pH 5.5-10.0 (25°C, 20hr)
<b>Michaelis Constant</b>	9.4×10 <sup>-5</sup> M (Glycerol), 1.3×10 <sup>-5</sup> M (ATP), 2.1×10 <sup>-3</sup> M (Dihydroxyacetone)



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<b>Structure</b>	Four subunits of approx. 58,000
<b>Optimum pH</b>	10
<b>Optimum temperature</b>	70°
<b>Thermal stability</b>	below 65°C (pH 7.5, 30min)
<b>Stability</b>	Stable at -20°C
<b>Inhibitors</b>	p-Chloromercuribenzoate, Hg <sup>++</sup> , Ag <sup>+</sup>
<b>Synonyms</b>	glycerokinase; GK; ATP: glycerol-3-phosphotransferase; glycerol kinase phosphorylating; glyceric kinase; EC 2.7.1.30