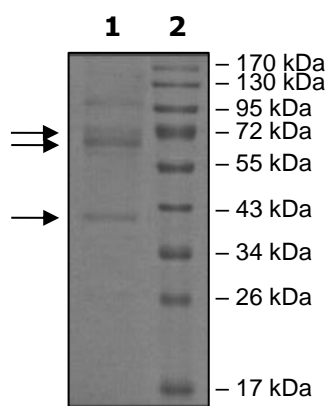


## Product Information

<b>Description:</b>	Recombinant human AMPK (combination of A1/B1/G2 subunits) full length protein containing a C-terminal His-tag. This recombinant protein was affinity purified and is kinase active.
<b>Species:</b>	Human
<b>Construct:</b>	AMPK (A1/B1/G2-His)
<b>Concentration:</b>	0.1 mg/ml
<b>Expression System:</b>	Sf9
<b>Purity:</b>	70%
<b>Format:</b>	Aqueous buffer solution
<b>Formulated In:</b>	50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF, 25% glycerol.
<b>MW:</b>	A1: 68 kDa; B1: 38 kDa; G2: 65 kDa
<b>Genbank Accession:</b>	A1: NM_006251; B1: NM_006253; G2: NM_001040633
<b>Stability:</b>	At least 6 months at -80°C. Avoid freeze/thaw cycles.
<b>Storage:</b>	-80°C
<b>Instructions for Use:</b>	Thaw on ice and gently mix prior to use. DO NOT VORTEX. Perform a quick spin before opening. Aliquot into small volumes and flash freeze for long term storage. Avoid multiple freeze/thaw cycles.
<b>Specific Activity:</b>	780 pmol/min/μg
<b>Assay Conditions:</b>	<p>AMPK (A1/B1/G2) activity was measured by using a SAMStide synthetic peptide substrate (HMRSAMSGSLHLVKRR), diluted in distilled water to a final concentration of 1 mg/ml, in a [33P]-ATP based assay. Reaction was initiated by mixing increasing amounts of the AMPK (A1/B1/G2) with 1250 pmoles of [33P]-ATP in 5 mM MOPS, pH 7.2, 2.5 mM β-glycerol-phosphate, 5 mM MgCl<sub>2</sub>, 0.4 mM EDTA, 50 ng/μl BSA prepared with 50 μM DTT, 1 mM ATP and substrate at a final concentration of 200 μg/ml.</p> <p>The reaction was initiated by addition of [33P]-ATP Assay Cocktail, followed by a 15-minute incubation at 30°C. The reaction was terminated by spotting the reaction mixture on phosphocellulose P81 paper, followed by three 10-minute washes with 1% phosphoric acid solution. Radioactivity was measured in a scintillation counter. The corrected activity (RLU) was calculated by removing the blank value for each sample. The Kinase Specific Activity was calculated as follows: <math>RLU / [(specific\ activity\ of\ [33P]-ATP\ in\ cpm/pmol) * (Reaction\ time\ in\ min) * (Enzyme\ amount\ in\ \mu g\ or\ mg)] * [(Reaction\ Volume) / (Spot\ Volume)]</math>. The blank was determined from a "no substrate" sample by replacing the substrate solution with an equal volume of distilled water.</p>
<b>Applications:</b>	Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.

## Quality Control Data

### 4-20% SDS-Page Coomassie Staining



### Specific Activity

