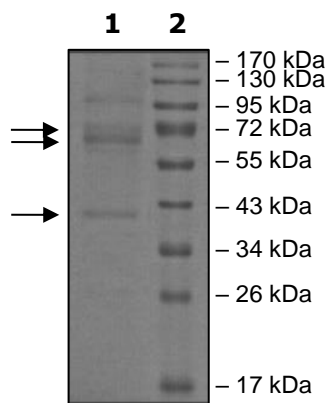


Product Information

Description:	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.
Species:	Human
Construct:	AMPK (A1/B1/G2-His)
Concentration:	0.1 mg/ml
Expression System:	Sf9
Purity:	70%
Format:	Aqueous buffer solution
Formulated In:	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.
MW:	A1: 68 kDa; B1: 38 kDa; G2: 65 kDa
Genbank Accession:	A1: NM_006251; B1: NM_006253; G2: NM_001040633
Stability:	At least 6 months at -80°C. Avoid freeze/thaw cycles.
Storage:	-80°C
Instructions for Use:	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.
Specific Activity:	780 pmol/min/μg
Assay Conditions:	<p>AMPK (A1/B1/G2) activity was measured by using a SAMStide synthetic peptide substrate (HMRSAMSGHLHLVKRR), 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 MgCl₂, 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: $RLU / [(specific\ activity\ of\ [33P]-ATP\ in\ cpm/pmol) * (Reaction\ time\ in\ min) * (Enzyme\ amount\ in\ \mu g\ or\ mg)] * [(Reaction\ Volume) / (Spot\ Volume)]$. The blank was determined from a "no substrate" sample by replacing the substrate solution with an equal volume of distilled water.</p>
Applications:	Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.

Quality Control Data

4-20% SDS-Page Coomassie Staining



Specific Activity

