PRKAA1

Recombinant Human Protein Kinase AMP-Activated alpha 1 Catalytic Subunit (aa 1-550) GST-His-Tagged Active

Catalog No.	CRA019A	**Quantity:**	10 µg
	CRA019B		100 µg
	CRA019C		1.0 mg

Alternate Names: AMP-activated Protein Kinase alpha 1, AMPKa, AMPK, AMPKa1

Description: Recombinant human AMPK-alpha 1 containing amino acids M_1-Q_{550} (as in NCBI/Protein accession number NP_006242.1)*, N-terminally fused to GST-HIS_6-Thrombin cleavage site.
*More recent versions of the sequence (e.g. NP_006242.5) list 559 aa for AMPK-alpha 1, with 9 additional aa at the N-terminus (MRRLSSWRK). Sequence available upon request.

Concentration: 0.144 µg/mL

Gene ID: 5562

Source: Sf9 cells

Molecular Weight: 92.2 kDa

Formulation: Liquid in 50 mM Tris-HCl, 100 mM NaCl, 5 mM DTT, 4 mM reduced glutathione, 20% glycerol, pH 8.0

Purification: GST-Affinity chromatography

Specific Activity: P_i transfer: 37 pmol/µg x min, K_M for ATP = 15 µM
Method for determination of K_M value and specific activity (filter binding assay):
Assay conditions:
60 mM HEPES-NaOH, pH 7.5
3 mM $MgCl_2$
3 mM $MnCl_2$
3 µM Na-orthovanadate
1.2 mM DTT
2.5 µg / 50 µl $PEG_{20.000}$
ATP (variable)
Substrate: GABA(A) receptor beta2 subunit (aa 427-439) (SRLRRRASQLKIT), 10 µg / 50 µL
Recombinant AMPK-alpha1: 200 ng / 50 µL

Reconstitution: For complete recovery, mix well and spin before use.

Storage & Stability: Store in working aliquots at -80 °C. Product must not be stored in diluted solutions. **Avoid repeated freeze-thaw cycles.**

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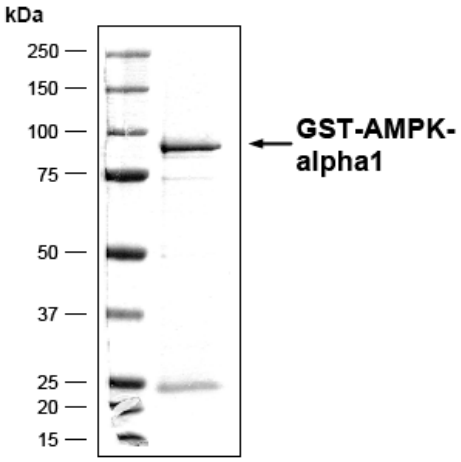
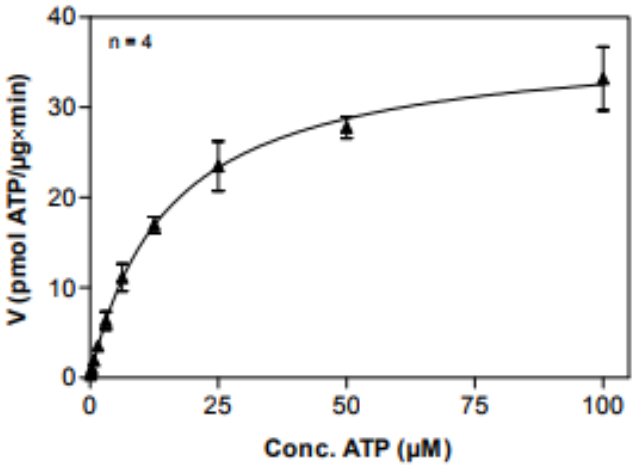
Coomassie stain:



2.0 µg GST-AMPK-alpha1

Determination of V_{max} and K_M value for ATP



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