

# AMPK-alpha1

aa1-550

**Product No.:** 0289-0000-1

**Lot:** 001

**Description:** Human AMPK-alpha1  
 Amino acids M<sub>1</sub>-Q<sub>550</sub> (as in GenBank entry NM\_006251)\*, N-terminally fused to GST-HIS<sub>6</sub>-Thrombin cleavage site

\*Sequence may contain documented polymorphisms  
 Detailed sequence on request

**Product identity:** AMPK-alpha1, Lot 001, was confirmed as human AMPK-alpha1 by mass spectroscopy LC-ESI-MS/MS (Protagen AG, Germany)

**Theoretical MW**<sub>Fusion Protein</sub>: 92,188 Da

**Expression:** Baculovirus infected Sf9 cells

**Purification:** One-step affinity purification using GSH-agarose

**Storage buffer:** 50 mM Tris-HCl, pH 8.0; 100 mM NaCl, 5 mM DTT, 4 mM reduced glutathione, 20% glycerol

**Storage temperature:** -80°C  
 Avoid repeated freeze-thaw cycles!

**Protein concentration:** 0.144 µg/µl  
 (Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

**Method for determination of K<sub>m</sub> value & Specific activity:**

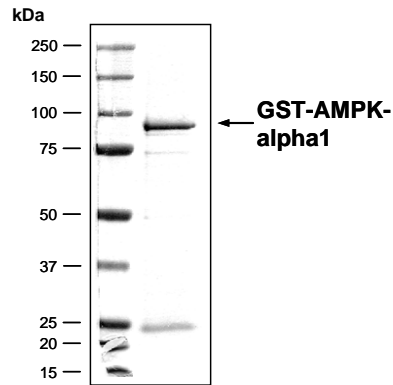
• Assay conditions:

60 mM HEPES-NaOH, pH 7.5  
 3 mM MgCl<sub>2</sub>  
 3 mM MnCl<sub>2</sub>  
 3 µM Na-orthovanadate  
 1.2 mM DTT  
 2.5 µg / 50 µl PEG<sub>20,000</sub>  
 ATP (variable)  
 Substrate: GABA(A) receptor beta2 subunit (427-439) (SRLRRASQLKIT), 10 µg / 50 µl  
 Recombinant AMPK-alpha1: 200 ng / 50 µl

• Filter binding assay  
 MSPH membrane (Millipore)

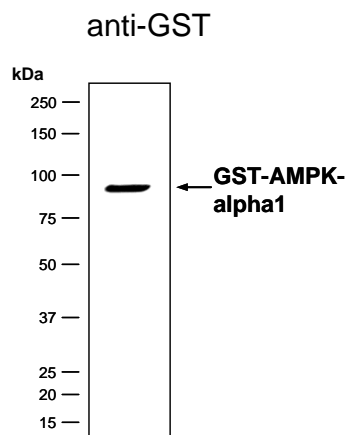
**Specific activity:** 37 pmol/µg×min

**Coomassie stain:**



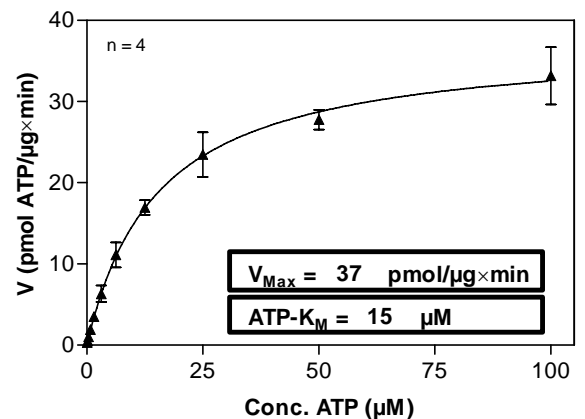
2.0 µg GST-AMPK-alpha1

**Western blot analysis:**



500 ng GST-AMPK-alpha1

**Determination of K<sub>m</sub> value for ATP:**



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