

## AMPK recombinant protein

AMPK (A1/B2/G3), Active

|                              |                                                   |                                     |
|------------------------------|---------------------------------------------------|-------------------------------------|
| CATALOG #<br><b>AAA73091</b> | HOST<br><b>Sf9 insect cells using baculovirus</b> | APPLICATIONS<br><b>Western Blot</b> |
|------------------------------|---------------------------------------------------|-------------------------------------|

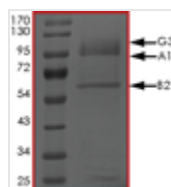
### PRODUCT SYNONYMS

AMPK; AMPK (A1/B2/G3); Active; AMPK recombinant protein

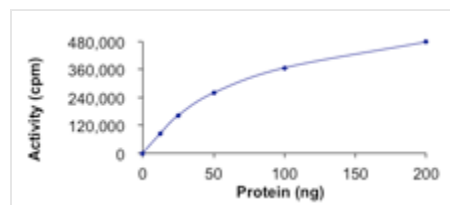
### PRODUCT SPECIFICATIONS

|                                                      |                                                                                                                                                                                                                                                      |
|------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                                 | Sf9 insect cells using baculovirus                                                                                                                                                                                                                   |
| Form/Format                                          | 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.                                                                                                                                               |
| Sequence Positions                                   | Full Length                                                                                                                                                                                                                                          |
| Sequence Length                                      | 5085                                                                                                                                                                                                                                                 |
| Applicable Applications for AMPK recombinant protein | WB (Western Blot), Kinase Assay                                                                                                                                                                                                                      |
| Species                                              | Human                                                                                                                                                                                                                                                |
| Tag                                                  | GST/HIS                                                                                                                                                                                                                                              |
| Dry Ice Note                                         | The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.                                                                                                                                                   |
| Preparation and Storage                              | Store product at -70 degree C.<br>For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature.<br>For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles. |

### IMAGES



Application Data



Application Data

### ADDITIONAL INFORMATION

|                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| Related Product Information for AMPK recombinant protein | <p>Description: Recombinant full-length human AMPK (combination of A1/B2/G3 subunits) was expressed by baculovirus in Sf9 insect cells using the N-terminal GST and C-terminal His tags.</p> <p>Scientific Background: AMP-activated protein kinase (AMPK) exhibits a key role as a master regulator of cellular energy homeostasis (1). AMPK exists as a heterotrimeric complex composed of a catalytic alpha subunit and regulatory beta and gamma subunits. Binding of AMP to the gamma subunit allosterically activates the complex. AMPK is activated in response to stresses that deplete cellular ATP (low glucose, hypoxia and ischemia) (2) and via signaling pathways in response to adiponectin, leptin and CAMKKbeta.</p> |
| Product Categories/Family for AMPK recombinant protein   | Enzymes; Active Kinases                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

|            |                                                                                                                                                                                                                                                                                               |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| References | 1. Hardie, G.D. The AMP-activated protein kinase pathway - new players upstream and downstream. J. Cell Sci. 2004;117: 5479 -5487. 2. Kahn, B.B. et al. AMP-activated protein kinase: Ancient energy gauge provides clues to modern understanding of metabolism. Cell Metab; 2005: 1, 15 -25. |
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NCBI AND UNIPROT INFORMATION

|                                  |                                                                                                          |
|----------------------------------|----------------------------------------------------------------------------------------------------------|
| NCBI GI #                        | 94557300                                                                                                 |
| NCBI GeneID                      | 5562                                                                                                     |
| NCBI Accession #                 | NM_006251.5                                                                                              |
| NCBI GenBank Nucleotide #        | NM_006251                                                                                                |
| UniProt Accession #              | Q13131; O00286; Q5D0E1; Q86VS1; Q9UNQ4; A8MTQ6; B2R7E1                                                   |
| Molecular Weight                 | ~92 kDa (A1); ~62 kDa (B2); ~108 kDa (G3)                                                                |
| NCBI Official Full Name          | Homo sapiens protein kinase AMP-activated catalytic subunit alpha 1 (PRKAA1), transcript variant 1, mRNA |
| NCBI Official Synonym Full Names | protein kinase AMP-activated catalytic subunit alpha 1                                                   |
| NCBI Official Symbol             | PRKAA1                                                                                                   |
| NCBI Official Synonym Symbols    | AMPK; AMPKa1                                                                                             |
| NCBI Protein Information         | 5'-AMP-activated protein kinase catalytic subunit alpha-1                                                |
| UniProt Protein Name             | 5'-AMP-activated protein kinase catalytic subunit alpha-1                                                |
| UniProt Gene Name                | <b>PRKAA1</b>                                                                                            |
| UniProt Synonym Gene Names       | AMPK1; HMGCR kinase                                                                                      |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.