SignalChem
Specialists in Signaling Proteins
1-866-9 KINASE (54-6273)

Catalog #	Aliquot Size
P46-14GH-20	20 µg
P46-14GH-50	50 µg

AMPK (A2/B2/G3), Unactive

Full-length recombinant protein expressed in Sf9 cells

Catalog # P46-14GH
Lot # Y1008-3

Product Description

Recombinant full-length human AMPK (combination of A2/B2/G3 subunits) was expressed by baculovirus in Sf9 insect cells using the N-terminal GST and C-terminal His tags. The gene accession numbers for the three subunits (A2/B2/G3) are NM_006252, NM_005399 and NM_017431.

Gene Aliases

Subunit A2: PRKAA2, AMPK, AMPK2, PRKAA
Subunit B2: PRKAB2, MGC61468
Subunit G3: PRKAG3

Formulation

Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.

Storage and Stability

Store product at –70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

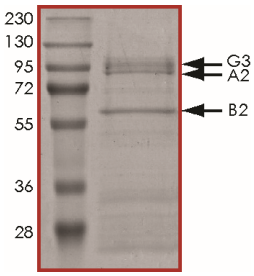
Scientific Background

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 α subunit and regulatory β and γ subunits. Binding of AMP to the γ 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 CAMKKβ.

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.

Purity



The purity of AMPK (A2B2G3) was determined to be **>80%** by densitometry, approx. MW **~92kDa (A2), ~62kDa (B2),** and **~108kDa (G3)**.

AMPK (A2/B2/G3), Unactive

Full-length recombinant protein expressed in Sf9 cells

Catalog #	P46-14GH
Lot #	Y1008-3
Purity	>80%
Concentration	0.1 µg/µl
Stability	1yr at –70°C from date of shipment
Storage & Shipping	Store product at –70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on dry ice.

To place your order, please contact us by phone 1-(604)-232-4600, fax 1-604-232-4601 or by email: orders@signalchem.com
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