

## Active Recombinant Human PRKAG1 & PRKAB1 & PRKAA2 Protein, His-GST-tagged

**Cat. No.** PRKAG1 & PRKAB1 & PRKAA2-1240H    **Lot. No.** (See product label)

### SPECIFICATION

|                             |                                                                                                                                                                                                                                                                 |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>     | Recombinant human PRKAG1 (P54619) (Met 1-Pro 331), constructed the plasmid 1; Recombinant human PRKAB1 (Q9Y478) (Met 1-Ile 270), constructed the plasmid 2; Recombinant human PRKAA2 (P54646) (Met 1-Arg 552) was fused with the N-terminal polyhistidine-tagge |
| <b>Species</b>              | Human                                                                                                                                                                                                                                                           |
| <b>Source</b>               | Insect Cells                                                                                                                                                                                                                                                    |
| <b>ProteinLength</b>        | 1-331;1-270 a.a.                                                                                                                                                                                                                                                |
| <b>Predicted N Terminal</b> | Met & Met & His                                                                                                                                                                                                                                                 |
| <b>Form</b>                 | Supplied as sterile 50mM Tris, 200mM NaCl, 1mM EDTA, 1mM DTT, 0.5mM PMSF, 10% gly, 1mM GSH, pH 7.4.                                                                                                                                                             |
| <b>Bio-activity</b>         | The specific activity was determined to be 4 nmol/min/mg using synthetic SAMS peptide (HMRSAMSGHLVKRR) as substrate.                                                                                                                                            |
| <b>Molecular Mass</b>       | The recombinant heterotrimer of human AMPK (PRKAG1 / PRKAB1 / PRKAA2) has a calculated molecular mass of 158 (38+30+90) KDa. The apparent molecular mass is approximately 40, 42 & 95 KDa respectively in SDS-PAGE under reducing conditions.                   |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

|                  |                                                                                                                                                           |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Endotoxin</b> | < 1.0 EU per µg of the protein as determined by the LAL method.                                                                                           |
| <b>Purity</b>    | >94 % as determined by SDS-PAGE.                                                                                                                          |
| <b>Stability</b> | Samples are stable for up to twelve months from date of receipt at -70°C.                                                                                 |
| <b>Storage</b>   | Store it under sterile conditions at -20°C~-70°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. |

## GENE INFORMATION

|                        |                                                                                                                                                                                                                         |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | PRKAG1 protein kinase, AMP-activated, gamma 1 non-catalytic subunit [ Homo sapiens ]                                                                                                                                    |
| <b>Official Symbol</b> | PRKAG1                                                                                                                                                                                                                  |
| <b>Synonyms</b>        | PRKAG1; protein kinase, AMP-activated, gamma 1 non-catalytic subunit; 5-AMP-activated protein kinase subunit gamma-1; AMPK gamma1; AMPK gamma-1 chain; 5-AMP-activated protein kinase, gamma-1 subunit; AMPKG; MGC8666; |
| <b>Gene ID</b>         | 5571                                                                                                                                                                                                                    |
| <b>mRNA Refseq</b>     | NM_001206709                                                                                                                                                                                                            |
| <b>Protein Refseq</b>  | NP_001193638                                                                                                                                                                                                            |
| <b>MIM</b>             | 602742                                                                                                                                                                                                                  |
| <b>UniProt ID</b>      | P54619                                                                                                                                                                                                                  |
| <b>Chromosome</b>      | 12q12-q14                                                                                                                                                                                                               |

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| Location |                                                                                                                                                                                                                                                                 |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pathway  | AMPK signaling, organism-specific biosystem; Adipocytokine signaling pathway, organism-specific biosystem; Adipocytokine signaling pathway, conserved biosystem; Energy Metabolism, organism-specific biosystem; Energy dependent regulation of mTOR by LKB1-AM |
| Function | ADP binding; AMP binding; contributes_to AMP-activated protein kinase activity; AMP-activated protein kinase activity; ATP binding; cAMP-dependent protein kinase activity; cAMP-dependent protein kinase regulator activity; nucleotide binding; protein bindi |

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