



# SZABO SCANDIC

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## Produktinformation



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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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## Datasheet

### PRKAA2 (Human) Recombinant Protein (P01)

**Catalog Number:** H00005563-P01

**Regulation Status:** For research use only (RUO)

**Product Description:** Human PRKAA2 full-length ORF ( NP\_006243.2, 1 a.a. - 552 a.a.) recombinant protein with GST-tag at N-terminal.

**Sequence:**

MAEKQKHDGRVKIGHYVLGDTLGVGTFGKVKIGEHL  
TGHKVAVKILNRQKIRSLDVVGKIKREIQNLKLFHRPHII  
KLYQVISTPTDFFMMEYVSGGELFDYICKHGRVEEM  
EARRLFQQILSAVDYCHRHMV/VHRDLKPENVLLDAH  
NAKIADFGLSNMMSDGEFLRTSCGSPNYAAPEVISGR  
LYAGPEVDIWSCGVILYALLCGTLPFDDEHVPTLFKKIR  
GGVFYIPEYLNRSVATLLMHMLQVDPLKRATIKDIREH  
EWFKQDLPSYLPEDPSYDANVIDDEAVKEVCEKFE  
TESEVMNSLYSGDPQDQLAVAYHLIIDNRRIMNQASEF  
YLASSPPSGSFMDDSAMHIPPGLKPHPERMPPLIADS  
PKARCPLDALNTTKPKSLAVKKAKWHLGIRSQSKPYDI  
MAEVYRAMKQLDFEWKVVNAYHLRVRKKNPVTGNYV  
KMSLQLYLVDNRSYLLDFKSIDDEVVEQRSGSSTPQR  
SCSAAGLHRPRSSFDSTTAESHLSGSLTGSLTGSL  
SSVSPRLGSHMTDFFEMCASLITTLAR

**Host:** Wheat Germ (in vitro)

**Theoretical MW (kDa):** 88.7

**Applications:** AP, Array, ELISA, WB-Re  
(See our web site product page for detailed applications information)

**Protocols:** See our web site at  
<http://www.abnova.com/support/protocols.asp> or product page for detailed protocols

**Preparation Method:** [in vitro wheat germ expression system](#)

**Purification:** Glutathione Sepharose 4 Fast Flow

**Storage Buffer:** 50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

**Storage Instruction:** Store at -80°C. Aliquot to avoid

repeated freezing and thawing.

**Entrez GeneID:** 5563

**Gene Symbol:** PRKAA2

**Gene Alias:** AMPK, AMPK2, PRKAA

**Gene Summary:** The protein encoded by this gene is a catalytic subunit of the AMP-activated protein kinase (AMPK). AMPK is a heterotrimer consisting of an alpha catalytic subunit, and non-catalytic beta and gamma subunits. AMPK is an important energy-sensing enzyme that monitors cellular energy status. In response to cellular metabolic stresses, AMPK is activated, and thus phosphorylates and inactivates acetyl-CoA carboxylase (ACC) and beta-hydroxy beta-methylglutaryl-CoA reductase (HMGCR), key enzymes involved in regulating de novo biosynthesis of fatty acid and cholesterol. Studies of the mouse counterpart suggest that this catalytic subunit may control whole-body insulin sensitivity and is necessary for maintaining myocardial energy homeostasis during ischemia. [provided by RefSeq]

**References:**

1. Negative regulation of AMPK signaling by high glucose via E3 ubiquitin ligase MG53. Peng Jiang, Lejiao Ren, Li Zhi, Zhong Yu, Fengxiang Lv, Fengli Xu, Wei Peng, Xiaoyu Bai, Kunlun Cheng, Li Quan, Xiuqin Zhang, Xianhua Wang, Yan Zhang, Dan Yang, Xinli Hu, Rui-Ping Xiao. Mol Cell. 2021 Feb 4;81(3):629-637.e5. doi: 10.1016/j.molcel.2020.12.008. Epub 2021 Jan 4.
2. Adipocyte-specific deletion of I $\beta$ 6k1 reduces diet-induced obesity by enhancing AMPK-mediated thermogenesis. Zhu Q, Ghoshal S, Rodrigues A, Gao S, Asterian A, Kamenecka TM, Barrow JC, Chakraborty A. J Clin Invest. 2016 Nov 1;126(11):4273-4288. Epub 2016 Oct 4.