AMPK. Ativadores da AMPK são benéficos no tratamento da obesidade, diabetes mellitus, hipertensão. Polifenóis: berberina, resveratrol, epigallocatequina-galato, quercetina

Ativação da AMPK (AMP-activated protein kinase) aumenta geração de ATP via beta-oxidação e glicólise e diminui as fontes de consumo de ATP: síntese de colesterol e de ácidos graxos e gliconeogênese. José de Felippe Junior

**AMP-activated protein kinase: a potential target for the diseases prevention by natural occurring polyphenols.**

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**Source**

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**Abstract**

A reduced life span is an outcome associated with many prevalent diseases, including diabetes, obesity, and high blood pressure. In seeking to prevent these diseases, many researchers have looked into potential therapeutic benefits of naturally occurring compounds. AMP-activated protein kinase (AMPK) is a major metabolic-sensing protein implicated in the prevention of metabolic disorders, or in minimizing the effects thereof, via the regulation of both upstream and downstream target molecules. In the field of food and nutrition, the current focus lies in the finding of components that activate AMPK. AMPK is a serine/threonine protein kinase and is activated by several natural compounds, including resveratrol, epigallocatechin gallate, berberine, and quercetin. AMPK activation can induce ATP (adenosine triphosphate) generation through pathways such as glycolysis and beta-oxidation. By contrast, ATP-consuming pathways, including fatty acid and cholesterol syntheses, and gluconeogenesis, are suppressed by AMPK activation. In this review, we will discuss how the activation of AMPK by naturally occurring compounds could help to prevent the development of numerous diseases; the potential mechanism underlying these effects will also be addressed.

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