عنوان مقاله:

ERK۵ Mediated Signalling in Diabetic Retinopathy

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خلاصه مقاله:

Abstract Diabetic retinopathy is the lead among causes of blindness in North America. Glucose-induced endothelial injury is the most important cause of diabetic retinopathy and other vascular complications. Extracellular signal-regulated kinase ۵ (ERK۵), also known as big mitogen-activated protein kinase ۱ (BMK۱), is a member of mitogen-activated protein kinases (MAPK) family. Physiologically, it is critical for cardiovascular development and maintenance of the endothelial cell integrity. Extracellular signal-regulated kinase ۵ is protective for endothelial cells under stimulation and stress. Decreased activation of ERK۵ results in increased endothelial cell death. Extracellular signal-regulated kinase ۵ signaling may be subject to alteration by hyperglycemia, while signaling pathway including ERK۵ may be subject to alteration during pathogenesis of diabetic complications. In this review, the role of ERK۵ in diabetic macro- and microvascular complications with a focus on diabetic retinopathy are summarized and discussed.

کلمات کلیدی: