

IKK connects autophagy to major stress pathways

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Cells respond to stress by activating cytoplasmic mechanisms as well as transcriptional programs that can lead to adaptation or death. Autophagy represents an important cytoprotective response that is regulated by both transcriptional and transcription-independent pathways. NF- κ B is perhaps the transcription factor most frequently activated by stress and has been ascribed with either pro- or anti-autophagic functions, depending on the cellular context. Our results demonstrate that activation of the IKK (I κ B kinase) complex, which is critical for the stress-elicited activation of NF- κ B, is sufficient to promote autophagy independent of NF- κ B, and that IKK is required for the optimal induction of autophagy by both physiological and pharmacological autophagic triggers. © 2010

Landes Bioscience.