



# Autophagy: Chapter 21. Hypoxia-Induced Autophagy Promotes Tumor Cell Survival

*Qipeng Zhang, Ke Zen*

Download now

[Click here](#) if your download doesn't start automatically

# Autophagy: Chapter 21. Hypoxia-Induced Autophagy Promotes Tumor Cell Survival

*Qipeng Zhang, Ke Zen*

**Autophagy: Chapter 21. Hypoxia-Induced Autophagy Promotes Tumor Cell Survival** Qipeng Zhang, Ke Zen

Macroautophagy (hereafter referred to as autophagy) is a highly conserved biological process that degrades and recycles damaged, misfolded proteins or long-lived organelles. Previous studies show that hypoxia is common in solid tumors, and that hypoxia-induced autophagy is also found in these tumor cells. This chapter summarizes the recent literature on hypoxia-induced autophagy and reviews the prosurvival role of hypoxia-induced autophagy. We first review the mechanism of hypoxia-induced autophagy, and then analyze the several aspects of the protective role of this autophagic response for tumor cells: hypoxia-induced autophagy prolongs the lifespan of tumor cells, stimulates a more aggressive phenotype, and elevates the incidence of metastasis. Furthermore, hypoxia-induced autophagy enhances the resistance of tumor cells to cancer therapy. Potential autophagy inhibitors, including pharmacological inhibitors and siRNA or microRNA of autophagic genes, are reviewed and listed in the chapter. In summary, hypoxia-induced autophagy promotes tumor cell survival. There is evidence of a tumor-suppressive role of autophagy in tumorigenesis, and the often observed autophagic cell death in extreme stress conditions is also discussed in this chapter. These phenomena can be attributed to the outcome of failed autophagic adaptation.

 [Download Autophagy: Chapter 21. Hypoxia-Induced Autophagy P ...pdf](#)

 [Read Online Autophagy: Chapter 21. Hypoxia-Induced Autophagy ...pdf](#)

## **Download and Read Free Online Autophagy: Chapter 21. Hypoxia-Induced Autophagy Promotes Tumor Cell Survival Qipeng Zhang, Ke Zen**

---

### **From reader reviews:**

#### **Toni Bays:**

The book Autophagy: Chapter 21. Hypoxia-Induced Autophagy Promotes Tumor Cell Survival make you feel enjoy for your spare time. You can utilize to make your capable considerably more increase. Book can for being your best friend when you getting strain or having big problem with your subject. If you can make examining a book Autophagy: Chapter 21. Hypoxia-Induced Autophagy Promotes Tumor Cell Survival to become your habit, you can get a lot more advantages, like add your own personal capable, increase your knowledge about some or all subjects. You may know everything if you like open and read a book Autophagy: Chapter 21. Hypoxia-Induced Autophagy Promotes Tumor Cell Survival. Kinds of book are several. It means that, science e-book or encyclopedia or other people. So , how do you think about this guide?

#### **Logan Merritt:**

Do you have something that you enjoy such as book? The e-book lovers usually prefer to opt for book like comic, quick story and the biggest some may be novel. Now, why not attempting Autophagy: Chapter 21. Hypoxia-Induced Autophagy Promotes Tumor Cell Survival that give your satisfaction preference will be satisfied by simply reading this book. Reading practice all over the world can be said as the way for people to know world much better then how they react when it comes to the world. It can't be stated constantly that reading habit only for the geeky man but for all of you who wants to become success person. So , for all you who want to start studying as your good habit, you could pick Autophagy: Chapter 21. Hypoxia-Induced Autophagy Promotes Tumor Cell Survival become your own starter.

#### **Scott Rochelle:**

This Autophagy: Chapter 21. Hypoxia-Induced Autophagy Promotes Tumor Cell Survival is brand-new way for you who has curiosity to look for some information as it relief your hunger info. Getting deeper you onto it getting knowledge more you know or perhaps you who still having tiny amount of digest in reading this Autophagy: Chapter 21. Hypoxia-Induced Autophagy Promotes Tumor Cell Survival can be the light food for you personally because the information inside this kind of book is easy to get simply by anyone. These books develop itself in the form which is reachable by anyone, sure I mean in the e-book application form. People who think that in e-book form make them feel drowsy even dizzy this book is the answer. So there is no in reading a book especially this one. You can find what you are looking for. It should be here for a person. So , don't miss this! Just read this e-book variety for your better life in addition to knowledge.

#### **Alexandra Stafford:**

As a university student exactly feel bored to reading. If their teacher asked them to go to the library or to make summary for some guide, they are complained. Just tiny students that has reading's internal or real their leisure activity. They just do what the educator want, like asked to go to the library. They go to there but

nothing reading significantly. Any students feel that studying is not important, boring and also can't see colorful images on there. Yeah, it is for being complicated. Book is very important to suit your needs. As we know that on this era, many ways to get whatever we would like. Likewise word says, ways to reach Chinese's country. Therefore , this Autophagy: Chapter 21. Hypoxia-Induced Autophagy Promotes Tumor Cell Survival can make you experience more interested to read.

**Download and Read Online Autophagy: Chapter 21. Hypoxia-Induced Autophagy Promotes Tumor Cell Survival Qipeng Zhang, Ke Zen #CZL06O81IW7**

## **Read Autophagy: Chapter 21. Hypoxia-Induced Autophagy Promotes Tumor Cell Survival by Qipeng Zhang, Ke Zen for online ebook**

Autophagy: Chapter 21. Hypoxia-Induced Autophagy Promotes Tumor Cell Survival by Qipeng Zhang, Ke Zen Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Autophagy: Chapter 21. Hypoxia-Induced Autophagy Promotes Tumor Cell Survival by Qipeng Zhang, Ke Zen books to read online.

## **Online Autophagy: Chapter 21. Hypoxia-Induced Autophagy Promotes Tumor Cell Survival by Qipeng Zhang, Ke Zen ebook PDF download**

**Autophagy: Chapter 21. Hypoxia-Induced Autophagy Promotes Tumor Cell Survival by Qipeng Zhang, Ke Zen Doc**

**Autophagy: Chapter 21. Hypoxia-Induced Autophagy Promotes Tumor Cell Survival by Qipeng Zhang, Ke Zen Mobipocket**

**Autophagy: Chapter 21. Hypoxia-Induced Autophagy Promotes Tumor Cell Survival by Qipeng Zhang, Ke Zen EPub**