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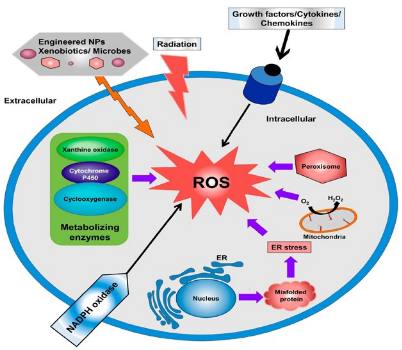
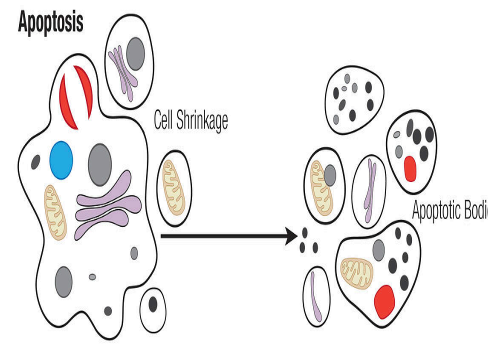
AAZ2 induces mitochondrial-dependent apoptosis by targeting PDK1 in gastric cancer

Key words: AAZ2, gastric cancer, ROS, apoptosis, PDK1, glucose metabolism

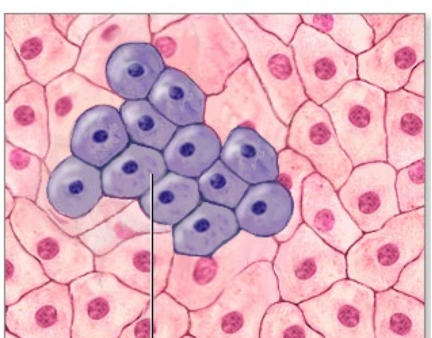
Research Summary

This article mainly focused on the anti-gastric cancer effects of novel organic compound AAZ2, and explored its mechanism in the following aspects:

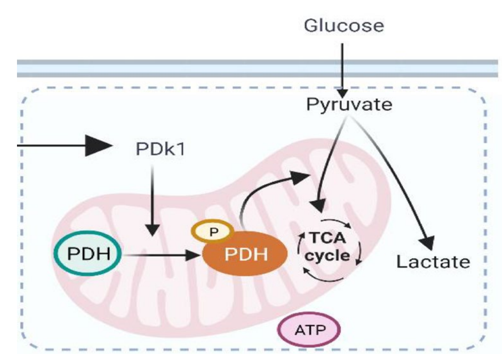




- **Cell cytotoxicity**
- **ROS generation**
- **PDK1 and glucose metabolism**
- **PI3K/AKT/mTOR pathway inhibition**
- **Tumor growth inhibition**



Proliferation of cancer cells



Innovation points

- **AAZ2** **is a kind of the novel organic compound that could inhibit GC proliferation and growth**

- **AAZ2** **targets PDK1 and could induce metabolism alteration along with ROS generation**

- **AAZ2** **activates mitochondrial-dependent apoptosis by the inhibition of ROS-mediated PI3K/AKT/mTOR pathway.**

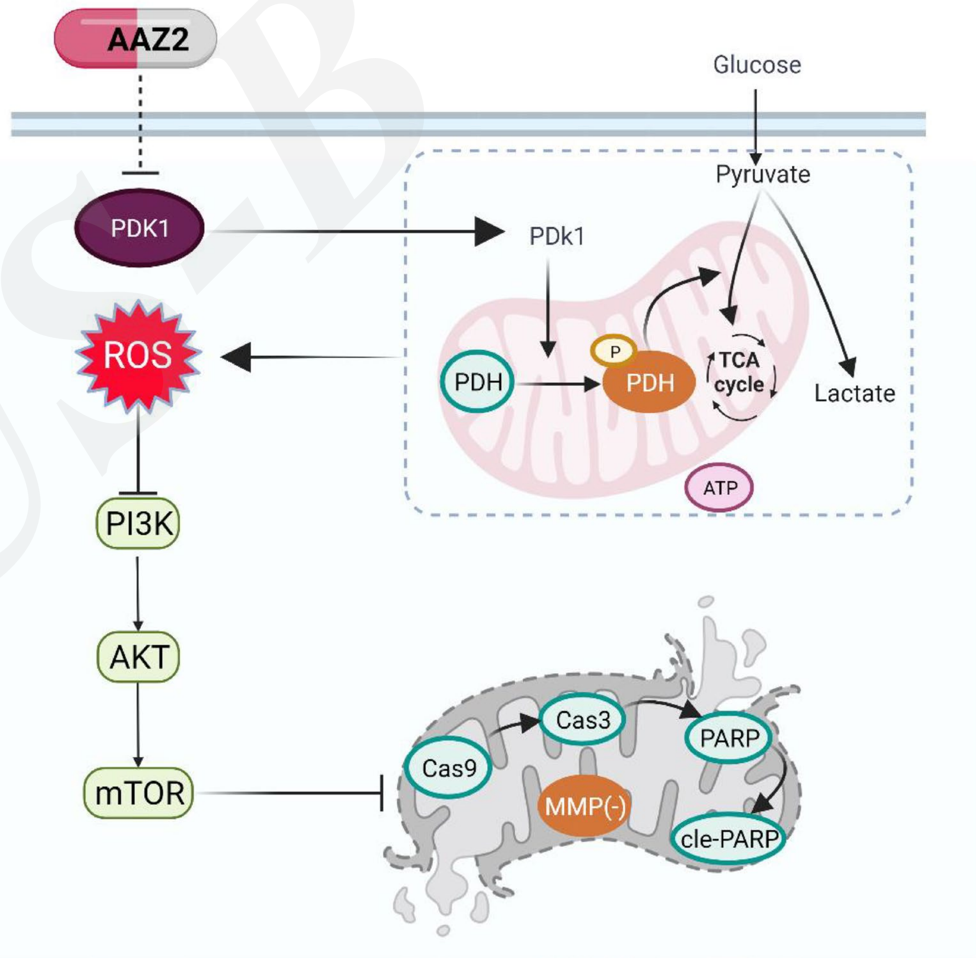


Figure 4

Innovation points

A series of comprehensive figures were generated to summarize the novel organic compound AAZ2.

Figure 1│Synthesis and cytotoxicity of AAZ2.

Figure 2│ AAZ2 induced mitochondrial-dependent apoptosis via ROS generation.

Figure 3│ AAZ2 triggered ROS generation by targeting PDK1-mediated metabolism alteration.

Figure 4│AAZ2 activated mitochondrial-dependent apoptosis by the inhibition of ROS-mediated PI3K/AKT/mTOR pathway

Figure 5│ AAZ2 inhibited HGC27 xenograft growth in vivo.