

**Protective effects of Ligusticum Chuanxiong on liver kupffer cells in  
Trauma-hemorrhagic shock Rats**

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**Abstracts**

Ligustrazine (tetramethylpyrazine), a bioactive component contained in Chuanxiong (*Ligusticum chuanxiong Hort*), is widely used in the treatment of cardiovascular diseases in China. It has been reported that ligustrazine can increase coronary blood flow and reduce myocardial ischemia in animals through Ca<sup>2+</sup> and ATP-dependent vascular relaxation. It also reduces the bioactivity of platelets and platelet aggregation, and inhibits free radicals formation. We hypothesized that Ligustrazine administration in trauma-hemorrhagic shock (THS) rats to decrease inflammation response proteins production and protect against liver injury. The dose of Ligustrazine (100, 1000 µg/ml) were administered in kupffer cells isolated from the trauma-hemorrhagic shock rat. Hemorrhagic shock was compensation effective the protein level of PI3K/Akt survival pathway, increased inflammation response proteins and increased mitochondria-dependent apoptosis protein levels in dose dependent manner. The results as hemorrhagic shock kupffer cells were treated with Ligustrazine in vitro and then Ligustrazine promoted kupffer cells survival, decreased inflammation response proteins and decreased mitochondria-dependent apoptosis protein levels to product.