

| Catalog       | Unit   |
|---------------|--------|
| TBI4607-50MG  | 50 mg  |
| TBI4607-250MG | 250 mg |

### Product Details

**Formal Name:** 1-[5-(1,3-Benzodioxol-5-yl)-1-oxo-2,4-pentadienyl]piperidine

**Alternate Names:** 1-Piperoylpiperidine

**Molecular Formula:** C<sub>17</sub>H<sub>19</sub>NO<sub>3</sub>

**Formula Weight:** 285.30

**CAS Number:** 94-62-2

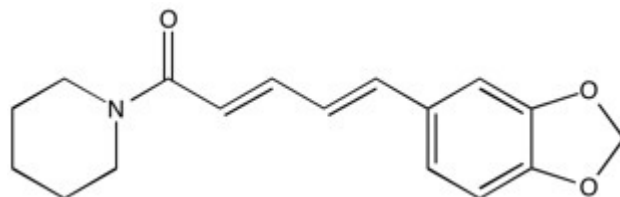
**Purity:** >98%

**Formulation:** powder

**Solubility:** Soluble in DMSO (up to at least 25 mg/ml)

**Storage:** -20°C

**Stability:** ≥ 1 year.



### Applications

Up-regulator of skeletal muscle metabolism

### Functions

Piperine is a natural product isolated from black pepper that has myriad biological effects. Piperine has recently been shown to increase the metabolic rate of resting muscle (fast twitch skeletal fibers) without effecting slow twitch or cardiac fibers via destabilization of the super-relaxed state of myosin heads. This is proposed as a mechanism for the mitigation of obesity and type 2 diabetes by piperine. Piperine is an agonist at the TRPV1 receptor (EC<sub>50</sub> = 38 μM). Piperine has various effects on drug metabolism, inhibits human P-glycoprotein and CYP3A4 as well as UDP-glucose dehydrogenase and glucuronidation.

### Application Procedures

First dissolved in DMSO (up to at least 25 mg/ml), then diluted to aqueous buffer. Solutions in DMSO may be stored desiccated at -20°C for up to 3 months.

**For research use only.**