PTEN
Phosphatase and tensin homolog; MMAC1

PTEN (Phosphatase and tensin homologue deleted on chromosome 10), a phosphoinositide 3-phosphatase, is an important regulator of insulin-dependent signaling. The loss or impairment of PTEN results in an antidiabetic impact, which led to the suggestion that PTEN could be an important target for drugs against type II diabetes. PTEN has a much wider active site cleft enabling it to bind the PtdIns(3,4,5)P3 substrate. A highly potent and specific inhibitor of PTEN that increases cellular PtdIns(3,4,5)P3 levels, phosphorylation of Akt, and glucose uptake in adipocytes at nanomolar concentrations.
**PTEN Inhibitors & Activators**

<table>
<thead>
<tr>
<th>Compound</th>
<th>Cat. No.</th>
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<tbody>
<tr>
<td><strong>Afzelin</strong> (Kaempferol-3-O-rhamnoside)</td>
<td>HY-N1441</td>
</tr>
<tr>
<td><strong>Ginkgolic acid C17:1</strong></td>
<td>HY-N2116</td>
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<tr>
<td><strong>Oroxin B</strong></td>
<td>HY-N1435</td>
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<tr>
<td><strong>SF1670</strong></td>
<td>HY-15842</td>
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<tr>
<td><strong>VO-Ohpic trihydrate</strong></td>
<td>HY-13074</td>
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</tbody>
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**Afzelin** (Kaempferol-3-O-rhamnoside) is a flavonol glycoside found in *Houttuynia cordata* Thunberg and is widely used in the preparation of antibacterial and antipyretic agents, detoxicants and for the treatment of inflammation.

- **Purity:** 99.62%
- **Clinical Data:** No Development Reported
- **Size:** 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 25 mg

**Ginkgolic acid C17:1**, extracted from *Ginkgo biloba* leaves, suppresses constitutive and inducible STAT3 activation through induction of **PTEN** and **SHP-1** tyrosine phosphatase. Ginkgolic acid C17:1 has anticancer effects.

- **Purity:** >98%
- **Clinical Data:** No Development Reported
- **Size:** 5 mg, 10 mg

**Oroxin B** is a flavonoid isolated from traditional Chinese herbal medicine *Oroxylum indicum* (L.) Vent.

- **Purity:** 98.77%
- **Clinical Data:** No Development Reported
- **Size:** 5 mg, 10 mg

**SF1670** is a potent and specific phosphatase and tensin homolog deleted on chromosome 10 (**PTEN**) inhibitor.

- **Purity:** >98.0%
- **Clinical Data:** No Development Reported
- **Size:** 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

**VO-Ohpic trihydrate** is a highly potent inhibitor of **PTEN** with an **IC<sub>50</sub>** of 46±10 nM.

- **Purity:** >98.0%
- **Clinical Data:** No Development Reported
- **Size:** 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg, 200 mg