Insulin receptor (IR) is a transmembrane receptor that is activated by insulin, IGF-I, IGF-II and belongs to the large class of tyrosine kinase receptors. Metabolically, the insulin receptor plays a key role in the regulation of glucose homeostasis, a functional process that under degenerate conditions may result in a range of clinical manifestations including diabetes and cancer. Biochemically, the insulin receptor is encoded by a single gene INSR, from which alternate splicing during transcription results in either IR-A or IR-B isoforms. Downstream post-translational events of either isoform result in the formation of a proteolytically cleaved α and β subunit, which upon combination are ultimately capable of homo or hetero-dimerisation to produce the ≈320 kDa disulfide-linked transmembrane insulin receptor.
## Insulin Receptor Inhibitors & Modulators

### AGL-2263
**Cat. No.:** HY-112720

**Bioactivity:** AGL-2263 is an insulin receptor (IR) blocker.

**Purity:** > 98%

**Clinical Data:** No Development Reported

**Size:**
- 10mM x 1mL in DMSO
- 5 mg, 10 mg, 50 mg, 100 mg

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### BMS-536924
**Cat. No.:** HY-10262

**Bioactivity:** BMS-536924 is an ATP-competitive IGF-1R/IR inhibitor with IC50 of 100 nM/73 nM.

**Purity:** 98.73%

**Clinical Data:** No Development Reported

**Size:**
- 10mM x 1mL in DMSO
- 5 mg, 10 mg, 50 mg

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### BMS-754807
**Cat. No.:** HY-10200

**Bioactivity:** BMS-754807 is a potent and reversible inhibitor of the insulin-like growth factor 1 receptor (IGF-1R)/insulin receptor family kinases (IR) with IC50 of 1.8 and 1.7 nM, respectively and Kd of <2 nM for both, and also shows potent activit...

**Purity:** 99.18%

**Clinical Data:** Phase 2

**Size:**
- 10mM x 1mL in DMSO
- 5 mg, 10 mg, 50 mg, 100 mg

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### Insulin levels modulator
**Cat. No.:** HY-112819

**Bioactivity:** Insulin levels modulator could be used to treat diabetes.

**Purity:** > 98%

**Clinical Data:** No Development Reported

**Size:**
- 250 mg, 500 mg

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### Insulin(cattle)
**Cat. No.:** HY-P1156

**Bioactivity:** Insulin cattle is a kind of polypeptide hormone that regulates glucose metabolism in pancreatic islet B-cells.

**Purity:** 98.60%

**Clinical Data:** No Development Reported

**Size:**
- 10 mg, 25 mg, 50 mg, 100 mg

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### Insulin(human)
**Cat. No.:** HY-P0035

**Bioactivity:** Insulin(human) is a peptide hormone that regulates the level of sugar (glucose) in the blood and that is produced by the beta cells of the pancreatic islets.

**Purity:** 96.90%

**Clinical Data:** Launched

**Size:**
- 10 mg, 25 mg, 50 mg, 100 mg

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### Kaempferitrin
**Cat. No.:** HY-N0628

**Bioactivity:** Kaempferitrin is a natural flavonoid, possesses antinociceptive, anti-inflammatory, anti-diabetic, antitumoral and chemopreventive effects, and activates insulin signaling pathway.

**Purity:** > 98%

**Clinical Data:** No Development Reported

**Size:**
- 1 mg, 5 mg, 10 mg

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### KU14R
**Cat. No.:** HY-15481

**Bioactivity:** KU14R is a new I(3)-R antagonist, which selectively blocks the insulin secretory response to imidazolines.

**Purity:** > 98%

**Clinical Data:** No Development Reported

**Size:**
- 5 mg, 10 mg

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### LDK378
**Cat. No.:** HY-15656

**Bioactivity:** LDK378 is a potent and specific ALK inhibitor with an IC50 of 0.2 nM.

**Purity:** 99.95%

**Clinical Data:** Launched

**Size:**
- 10mM x 1mL in DMSO
- 5 mg, 10 mg, 50 mg, 100 mg, 200 mg, 500 mg, 1 g, 2 g, 5 g, 10 g

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**Bioactivity:** AG-1263 is an insulin receptor (IR) blocker.

**Purity:** > 98%

**Clinical Data:** No Development Reported

**Size:**
- 10mM x 1mL in DMSO
- 5 mg, 10 mg, 50 mg, 100 mg

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**Bioactivity:** BMS-536924 is an ATP-competitive IGF-1R/IR inhibitor with IC50 of 100 nM/73 nM.

**Purity:** 98.73%

**Clinical Data:** No Development Reported

**Size:**
- 10mM x 1mL in DMSO
- 5 mg, 10 mg, 50 mg

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**Bioactivity:** GSK1838705A is a potent and reversible IGF-1R and the insulin receptor inhibitor with IC50 of 2.0 and 1.6 nM, respectively. It also inhibits ALK with an IC50 of 0.5 nM.

**Purity:** > 98%

**Clinical Data:** Phase 2

**Size:**
- 10mM x 1mL in DMSO
- 5 mg, 10 mg, 50 mg, 100 mg

---

**Bioactivity:** Insulin levels modulator could be used to treat diabetes.

**Bioactivity:** Insulin cattle is a kind of polypeptide hormone that regulates glucose metabolism in pancreatic islet B-cells.

**Bioactivity:** Insulin(human) is a peptide hormone that regulates the level of sugar (glucose) in the blood and that is produced by the beta cells of the pancreatic islets.

**Bioactivity:** Kaempferitrin is a natural flavonoid, possesses antinociceptive, anti-inflammatory, anti-diabetic, antitumoral and chemopreventive effects, and activates insulin signaling pathway.

**Bioactivity:** KU14R is a new I(3)-R antagonist, which selectively blocks the insulin secretory response to imidazolines.

**Bioactivity:** LDK378 is a potent and specific ALK inhibitor with an IC50 of 0.2 nM.
<table>
<thead>
<tr>
<th>Compound</th>
<th>Bioactivity</th>
<th>Purity</th>
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</table>
| **LDK378 dihydrochloride**  
(Ceritinib dihydrochloride) | LDK378 2HCl (Ceritinib) is potent inhibitor against ALK with IC50 of 0.2 nM, shows 40- and 35-fold selectivity against IGF-1R and InsR, respectively. IC50 Value: 0.2 nM [1] Target: ALK in vitro: LDK378 shows great anti-proliferative activity in Ba/F3-NPM-ALK and Karpas290 cells with IC50 of 26.0 nM and... | 98.76%   | No Development Reported | 10mM x 1mL in DMSO, 2 mg, 5 mg, 10 mg, 50 mg, 100 mg |
| **Linsitinib**  
(OSI-906) | Losmapimod is a dual inhibitor of the IGF-1 receptor and insulin receptor with IC50 of 35 and 75 nM, respectively. | 99.90%   | Phase 3               | 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg |
| **MSDC 0160**  
(Mitoglitazone; CAY10415) | MSDC 0160 act as an insulin sensitizer and a modulator of mitochondrial pyruvate carrier (MPC), a key controller of cellular metabolism that influences mTOR (mammalian target of rapamycin) activation. In Vitro: MSDC-0160 acts as insulin sensitizers without activating PPARγ. MSDC-0160 (10 μM)... | 98.0%    | Phase 2               | 10mM x 1mL in DMSO, 2 mg, 5 mg, 10 mg, 50 mg, 100 mg |
| **NT157**  
(Tyrphostin NT157) | NT157 is a selective inhibitor of IRS-1/2, IC50 values at sub-micromolar doses (ranging from 0.3 to 0.8 μM). | 99.19%   | No Development Reported | 10mM x 1mL in DMSO, 2 mg, 5 mg, 10 mg, 25 mg, 50 mg |
| **NVP-AEW541**  
(AEW541) | NVP-AEW541 is a potent inhibitor of IGF-1R with IC50 of 0.15 μM, also inhibits InsR, with IC50 of 0.14 μM. | 98.76%   | No Development Reported | 10mM x 1mL in DMSO, 2 mg, 5 mg, 10 mg, 50 mg, 100 mg |