Vitamin D Related

Vitamin D was first identified as a cure for nutritional rickets, a disease of bone growth caused by an inadequate uptake of dietary calcium. Vitamin D refers collectively to vitamin D3 and vitamin D2. Biologically active vitamin D is generated via largely hepatic 25-hydroxylation catalyzed by CYP2R1, CYP27A1, and possibly other enzymes to produce 25-hydroxyvitamin D (25D), which has a long half-life and is the major circulating vitamin D metabolite. 25D is modified by 1α-hydroxylation catalyzed by CYP27B1, which produces hormonal 1,25-dihydroxyvitamin D (1,25D). The biological actions of 1,25(OH)2D3 are mediated by the VDR. VDR belongs to the steroid receptor family which includes receptors for retinoic acid, thyroid hormone, sex hormones, and adrenal steroids. The genomic mechanism of 1,25(OH)2D3 action involves the direct binding of the 1,25(OH)2D3 activated vitamin D receptor/retinoic X receptor (VDR/RXR) heterodimeric complex to specific DNA sequences. 1,25(OH)2D3 action regulates renal calcium reabsorption and phosphate loss, and thus control bone metabolism mainly indirectly by regulating mineral homeostasis. Vitamin D deficiency increases rates of cancer, as well as autoimmune and infectious diseases. More than 3,000 vitamin D analogs are developed worldwide and several analogs demonstrated more potent antiproliferative and prodifferentiating effects on cancer cell lines compared with 1,25(OH)2D3, which may lead to the development of new therapies to prevent and treat diseases.

References:
Target List in Vitamin D Related

• VD/VDR .................................................. 3
Vitamin D is a secosteroidal prohormone, it can be synthesized at sufficient levels in skin, given adequate skin exposure to UV B radiation from sunlight. Vitamin D modulates its biological effects by directly regulating target gene expression through the Vitamin D receptor (VDR), a ligand-regulated transcription factor and a member of the nuclear receptor superfamily. Whether synthesized in the skin or ingested, vitamin D requires two hydroxylation steps to become the biologically active hormone, 1,25-dihydroxyvitamin D₃ [1,25(OH)₂ D₃], a form that signals through the VDR. The hormone-bound VDR modulates target gene transcription in response to vitamin D. VDR acts as a master transcriptional regulator of autophagy. Activation of the VDR by vitamin D induces autophagy and an autophagic transcriptional signature in breast cancer (BC) cells. There are 2 forms of vitamin D. Vitamin D₂ (ergocalciferol) comes from irradiation of the yeast and plant sterol ergosterol, and vitamin D₃ (cholecalciferol) is found in oily fish and cod liver oil and is made in the skin. Vitamin D represents vitamin D₂ and vitamin D₃.

Topical agents containing active vitamin D₃ (calcitriol, 1α, 25- dihydroxyvitaminD₃, VD₃) analogues such as Tacalcitol, Calcipotriol and Maxacalcitol are widely used for psoriasis therapy.
VD/VDR Inhibitors & Modulators

(24R)-MC 976  
Cat. No.: HY-15267A

Bioactivity: (24R)-MC 976 is a Vitamin D3 derivative.

Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg

(24S)-MC 976  
Cat. No.: HY-15267B

Bioactivity: (24S)-MC 976 is a Vitamin D3 derivative.

Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg

1alpha, 24, 25-Trihydroxy VD2  
Cat. No.: HY-15156

Bioactivity: 1alpha, 24, 25-Trihydroxy VD2 is a vitamin D analog.

Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

1alpha-Hydroxy VD4  
Cat. No.: HY-13249

(1α-Hydroxy vitamin D4)

Bioactivity: 1alpha-Hydroxy VD4, a 1alpha(OH)D derivative, can effectively induce the differentiation of monoblastic leukaemia U937, P39/TSU and P31/FUJ cells.

Purity: 97.87%
Clinical Data: No Development Reported
Size: 1 mg

24, 25-Dihydroxy VD2  
(24,25-Dihydroxy vitamin D2)  
Cat. No.: HY-76801

Bioactivity: 24, 25-Dihydroxy VD2 is a hydroxylated metabolite of Vitamin D2; a synthetic analog of Vitamin D.

Purity: 99.79%
Clinical Data: No Development Reported
Size: 1 mg, 10 mg

24R-Calcipotriol  
(PRI 2202; Impurity D of Calcipotriol)  
Cat. No.: HY-15266

Bioactivity: 24R-Calcipotriol (PRI 2202) is an impurity of Calcipotriol; Calcipotriol (MC 903; Calcipotriene) is a ligand of VDR-like receptors.

Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg

25,26-Dihydroxyvitamin D3  
(25,26-Dihydroxycholecalciferol)  
Cat. No.: HY-15830

Bioactivity: 25,26-Dihydroxyvitamin D3(25,26-dihydroxycholecalciferol) is a metabolite of vitamin D3 with intestinal calcium transport activity. IC50 value: Target: VD metabolite The biological activity of synthetic 24,25 and 25,26 diOHD3 was studied in vitamin D-deficient rats. The purpose of this study was to...

Purity: 96.34%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg, 10 mg
25-Hydroxy VD2-D6  
Cat. No.: HY-15328

Bioactivity: 25-Hydroxy VD2-D6 is a labelled metabolite of Vitamin D2.

Purity: 99.75%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO,
1 mg, 5 mg

3-O-(2-Aminoethyl)-25-hydroxyvitamin D3  
(25-Hydroxy Vitamin D3 3,3’-Aminopropyl Ether)  
Cat. No.: HY-15254

Bioactivity: 3-O-(2-Aminoethyl)-25-hydroxyvitamin D3 is a Vitamin D3 derivative.

Purity: 98.71%
Clinical Data: No Development Reported
Size: 1mg, 5mg, 10mg

Alfacalcidol  
(1-hydroxycholecalciferol; 1.alpha.-Hydroxyvitamin D3)  
Cat. No.: HY-10003

Bioactivity: Alfacalcidol (1-hydroxycholecalciferol; Alpha D3; 1.alpha.-Hydroxyvitamin D3) is a non-selective VDR activator medication. IC50 value: Target: VDR activator Alfacalcidol (1-hydroxycholecalciferol; Alpha D3; 1.alpha.-Hydroxyvitamin D3) improves mechanical bone strength and bone mass, ...

Purity: 99.93%
Clinical Data: Launched
Size: 5mg, 10mg, 50mg, 100mg

Alfacalcidol-D6  
Cat. No.: HY-15332

Bioactivity: Alfacalcidol-D6, a deuterated Alfacalcidol (1-hydroxycholecalciferol; Alpha D3; 1.alpha.-Hydroxyvitamin D3), is a non-selective VDR activator medication.

Purity: 98.0%
Clinical Data: No Development Reported
Size: 1mg, 5mg

Calcifediol  
(25-hydroxy Vitamin D3)  
Cat. No.: HY-32351

Bioactivity: Calcifediol is a major circulating metabolite of vitamin D3, acting as a competitive inhibitor with an apparent K_i of 3.9 μM, suppresses PTH secretion and mRNA (ED_50=2 nM).

Purity: 98.93%
Clinical Data: Launched
Size: 5mg, 100mg

Calcifediol monohydrate  
(25-hydroxy Vitamin D3 monohydrate)  
Cat. No.: HY-32351A

Bioactivity: Calcifediol (monohydrate) is a major circulating metabolite of vitamin D3, acting as a competitive inhibitor with an apparent K_i of 3.9 μM, suppresses PTH secretion and mRNA (ED_50=2 nM).

Purity: 99.75%
Clinical Data: Launched
Size: 5mg, 100mg

Calcifediol-D6  
Cat. No.: HY-13332

Bioactivity: Calcifediol-D6 is the deuterated form of Calcifediol(25-hydroxy Vitamin D3), which is a prehormone that is produced in the liver by hydroxylation of vitamin D3 (cholecalciferol) by the enzyme cholecalciferol 25-hydroxylase.

Purity: >98%
Clinical Data: No Development Reported
Size: 1mg, 5mg

Calcipotriol  
(MC 903; Calcipotriene)  
Cat. No.: HY-10001

Bioactivity: Calcipotriol is a synthetic VitD3 analogue with a high affinity for the vitamin D receptor.

Purity: 99.77%
Clinical Data: Launched
Size: 5mg, 10mg, 50mg, 100mg

Calcipotriol Impurity C  
Cat. No.: HY-75035

Bioactivity: Calcipotriol Impurity C is the impurity of Calcipotriol, Calcipotriol is a ligand of VDR-like receptors. Target: VDR

Purity: 99.20%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO,
500mg

Calcipotriol monohydrate  
Cat. No.: HY-10001A

Bioactivity: Calcipotriol monohydrate is a synthetic VitD3 analogue with a high affinity for the vitamin D receptor.

Purity: 99.75%
Clinical Data: Launched
Size: 5mg, 10mg, 50mg, 100mg
Bioactivity: Calcitetrol(1α, 24, 25-Trihydroxy VD3) is the hormonally active form of vitamin D with three hydroxyl groups.

Purity: 97.98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Bioactivity: Calcitriol is the most active metabolite of vitamin D and also a vitamin D receptor (VDR) agonist.

Purity: 99.81%
Clinical Data: Launched
Size: 2 mg, 5 mg, 10 mg, 50 mg, 100 mg

Bioactivity: Calcitriol D6 is the deuterated form of Calcitriol(1,25-Dihydroxyvitamin D3; Rocaltrol ), which is the hormonally active form of vitamin D. Calcitriol is the active metabolite of vitamin D3 that activates the vitamin D receptor (VDR). IC50 value: Target: vitamin D receptor.

Purity: 98.49%
Clinical Data: No Development Reported
Size: 1 mg

Bioactivity: Calcitriol Impurities A is the impurity of Calcitriol, Calcitriol is the hormonally active form of vitamin D, Calcitriol is the active metabolite of vitamin D3 that activates the vitamin D receptor (VDR).

Purity: 99.51%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg, 10 mg, 25 mg

Bioactivity: Calcitriol Impurities D is the impurity of Calcitriol, Calcitriol is the hormonally active form of vitamin D, Calcitriol is the active metabolite of vitamin D3 that activates the vitamin D receptor (VDR).

Purity: 95.18%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg

Bioactivity: Calcitriol Derivatives is a vitamin D3 analog.

Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Bioactivity: Calcitriol Derivatives is a vitamin D3 analog.

Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Bioactivity: Calcitriol Derivatives is a vitamin D3 analog.

Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Bioactivity: Calcitriol Impurities D is the impurity of Calcitriol, Calcitriol is the hormonally active form of vitamin D, Calcitriol is the active metabolite of vitamin D3 that activates the vitamin D receptor (VDR).

Purity: 95.18%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg

Bioactivity: Chol-5-en-24-al-3β-ol is a steroid compound (Vitamin D3 derivative) extracted from patent US 4354972 A, Compound IX.

Purity: >98%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg

Bioactivity: Cholecalciferol(Vitamin D3; Colecalciferol) is a naturally occuring form of vitamin D; Reported that upon metabolic activation, Cholecalciferol induces cell differentiation and prevents proliferation of cancer cells. IC50 value: Target: Vitamin D acts through a receptor that is a member of the...

Purity: 98.0%
Clinical Data: Launched
Size: 100 mg, 1 g, 5 g

Bioactivity: Doxercalciferol is a Vitamin D2 analog, acts as an activator of Vitamin D receptor, and prevent renal disease.

Purity: 99.85%
Clinical Data: Launched
Size: 2 mg, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Bioactivity: Doxercalciferol-D3 is the deuterated form of Doxercalciferol, which is a Vitamin D2 analog that acts as a vitamin D receptor activator (VDRA).

Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg
<table>
<thead>
<tr>
<th><strong>Bioactivity:</strong></th>
<th>Eldecalcitol (ED-71; 1,25-dihydroxyvitamin D3)</th>
<th>Cat. No.: HY-A0020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioactivity:</td>
<td>Eldecalcit (ED-71; 2beta-(3-Hydroxypropoxy)-1alpha,25-dihydroxyvitamin D3) is an analog of 1,25-dihydroxyvitamin D3 that improves bone mineral density. IC50 value: Target: Vd analog Eldecalcitol (ED-71).</td>
<td></td>
</tr>
<tr>
<td>Purity:</td>
<td>99.89%</td>
<td></td>
</tr>
<tr>
<td>Clinical Data:</td>
<td>Launched</td>
<td></td>
</tr>
<tr>
<td>Size:</td>
<td>1 mg</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Bioactivity:</strong></th>
<th>Ercalcidol (25-hydroxy Vitamin D2)</th>
<th>Cat. No.: HY-32349</th>
</tr>
</thead>
</table>
| Bioactivity:     | Ercalcidol is a metabolite of vitamin D 
2, is regarded as an indicator of vitamin D nutritional status. |
| Purity:          | 98.93%                             |
| Clinical Data:   | No Development Reported            |
| Size:            | 1 mg, 5 mg, 10 mg, 25 mg           |

<table>
<thead>
<tr>
<th><strong>Bioactivity:</strong></th>
<th>Ercalcitriol (1α,25-Dihydroxy Vitamin D2)</th>
<th>Cat. No.: HY-32350</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioactivity:</td>
<td>Ercalcitriol (1α,25-Dihydroxy Vitamin D2) is a active metabolite of vitamin D2. IC50 value: Target: Ercalcitriol (1α,25-Dihydroxy Vitamin D2) exhibits equipotent antirachitic activity in rats as calcitriol. Ercalcitriol (1α,25-Dihydroxy Vitamin D2) is a VDR-like Receptors</td>
<td></td>
</tr>
<tr>
<td>Purity:</td>
<td>98.17%</td>
<td></td>
</tr>
<tr>
<td>Clinical Data:</td>
<td>No Development Reported</td>
<td></td>
</tr>
<tr>
<td>Size:</td>
<td>1 mg, 5 mg, 10 mg</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Bioactivity:</strong></th>
<th>Falecalcitriol</th>
<th>Cat. No.: HY-32342</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioactivity:</td>
<td>Falecalcitriol (Fulstan; Hornel) is an analog of calcitriol; has a higher potency both in vivo and in vitro systems, and longer duration of action in vivo.</td>
<td></td>
</tr>
<tr>
<td>Purity:</td>
<td>99.13%</td>
<td></td>
</tr>
<tr>
<td>Clinical Data:</td>
<td>Launched</td>
<td></td>
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<tr>
<td>Size:</td>
<td>1 mg</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Bioactivity:</strong></th>
<th>Impurity B of Calcitriol (1β,25-Dihydroxy-Vitamin-D3; 1-Epicalcitriol)</th>
<th>Cat. No.: HY-13292</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioactivity:</td>
<td>Impurity B of Calcitriol, Calcitriol (1β,25-Dihydroxyvitamin D3; Rocaltrol) is the hormonally active form of vitamin D, Calcitriol is the active metabolite of vitamin D3 that activates the vitamin D receptor (VDR).</td>
<td></td>
</tr>
<tr>
<td>Purity:</td>
<td>97.25%</td>
<td></td>
</tr>
<tr>
<td>Clinical Data:</td>
<td>No Development Reported</td>
<td></td>
</tr>
<tr>
<td>Size:</td>
<td>1 mg, 5 mg, 10 mg</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Bioactivity:</strong></th>
<th>Impurity C of Alfacalcidol</th>
<th>Cat. No.: HY-13294</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioactivity:</td>
<td>Impurity of Alfacalcidol. Alfacalcidol (1-hydroxycholecalciferol; Alpha D3; 1alpha-Hydroxyvitamin D2) is a non-selective VDR activator medication.</td>
<td></td>
</tr>
<tr>
<td>Purity:</td>
<td>99.81%</td>
<td></td>
</tr>
<tr>
<td>Clinical Data:</td>
<td>No Development Reported</td>
<td></td>
</tr>
<tr>
<td>Size:</td>
<td>1 mg</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Bioactivity:</strong></th>
<th>Impurity C of Calcitriol</th>
<th>Cat. No.: HY-13293</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioactivity:</td>
<td>Impurity C of Calcitriol, Calcitriol (1β,25-Dihydroxyvitamin D3; Rocaltrol) is the hormonally active form of vitamin D, Calcitriol is the active metabolite of vitamin D3 that activates the vitamin D receptor (VDR).</td>
<td></td>
</tr>
<tr>
<td>Purity:</td>
<td>99.98%</td>
<td></td>
</tr>
<tr>
<td>Clinical Data:</td>
<td>No Development Reported</td>
<td></td>
</tr>
<tr>
<td>Size:</td>
<td>1 mg, 5 mg, 10 mg</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Bioactivity:</strong></th>
<th>Impurity F of Calcipotriol</th>
<th>Cat. No.: HY-15265</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioactivity:</td>
<td>Impurity F of Calcipotriol: Calcipotriol (MC 903; Calcipotriene) is a ligand of VDR-like receptors. IC50 value: Target: Vitamin D3 analog that displays minimal effects on calcium homeostasis. Regulates cell differentiation and proliferation; Calcipotriol (MC 903; Calcipotriene) exhibits...</td>
<td></td>
</tr>
<tr>
<td>Purity:</td>
<td>97.12%</td>
<td></td>
</tr>
<tr>
<td>Clinical Data:</td>
<td>No Development Reported</td>
<td></td>
</tr>
<tr>
<td>Size:</td>
<td>1 mg</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Bioactivity:</strong></th>
<th>Impurity of Doxercalcirol</th>
<th>Cat. No.: HY-76937</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioactivity:</td>
<td>Impurity of Doxercalcirol is an impurity of doxercalcirol, which is a synthetic analog of ergocalciferol (vitamin D2), used as a drug for secondary hyperparathyroidism and metabolic bone disease, and it suppresses parathyroid synthesis and secretion.</td>
<td></td>
</tr>
<tr>
<td>Purity:</td>
<td>96.08%</td>
<td></td>
</tr>
<tr>
<td>Clinical Data:</td>
<td>No Development Reported</td>
<td></td>
</tr>
<tr>
<td>Size:</td>
<td>10 mg, 25 mg</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Bioactivity:</strong></th>
<th>Lexacalcitol (KH 106; KH 1060)</th>
<th>Cat. No.: HY-32340</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioactivity:</td>
<td>Lexacalcitol (KH1060) is over 100 times more active than 1alpha,25-dihydroxyvitamin D3 (1alpha,25-(OMe)D3), as judged in vitro antiproliferative and cell differentiating assays.</td>
<td></td>
</tr>
<tr>
<td>Purity:</td>
<td>&gt;98%</td>
<td></td>
</tr>
<tr>
<td>Clinical Data:</td>
<td>No Development Reported</td>
<td></td>
</tr>
<tr>
<td>Size:</td>
<td>1 mg, 5 mg, 10 mg, 25 mg</td>
<td></td>
</tr>
</tbody>
</table>

www.MedChemExpress.com
| **Maxacalcitol**  
**Cat. No.: HY-32339** | **Maxacalcitol-D6**  
**Cat. No.: HY-15329** |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong> Maxacalcitol (22-Oxacalcitriol) is non-calcemic vitamin D3 analog and ligand of VDR-like receptors.</td>
<td></td>
</tr>
</tbody>
</table>
| **Purity:** 98.83%  
**Clinical Data:** Launched  
**Size:** 1 mg, 5 mg, 10 mg, 25 mg  |
| **Bioactivity:** Maxacalcitol-D6 is the deuterated form of Maxacalcitol (22-Oxacalcitriol), which is a non-calcemic vitamin D3 analog and VDR ligand of VDR-like receptors.  |
| **Purity:** 96.28%  
**Clinical Data:** No Development Reported  
**Size:** 1 mg, 5 mg  |

| **MC 1046**  
**Cat. No.: HY-15264** | **MC 976**  
**Cat. No.: HY-15267** |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong> MC 1046 (Impurity A of Calcipotriol) is an impurity of Calcipotriol; Calcipotriol (MC 903; Calcipotriene) is a ligand of VDR-like receptors. IC50 value: Target: Vitamin D3 analog that displays minimal effects on calcium homeostasis. Regulates cell differentiation and proliferation; Calcipotriol...</td>
<td></td>
</tr>
</tbody>
</table>
| **Purity:** 91.48%  
**Clinical Data:** No Development Reported  
**Size:** 1 mg  |
| **Bioactivity:** MC 976 is a Vitamin D3 derivative.  |
| **Purity:** >98%  
**Clinical Data:** No Development Reported  
**Size:** 1 mg  |

| **Paricalcitol**  
**Cat. No.: HY-50919** | **Paricalcitol-D6**  
**Cat. No.: HY-76585** |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong> Paricalcitol is a vitamin D receptor agonist, used for the prevention and treatment of secondary hyperparathyroidism (excessive secretion of parathyroid hormone) associated with chronic renal failure.</td>
<td></td>
</tr>
</tbody>
</table>
| **Purity:** 99.95%  
**Clinical Data:** Launched  
**Size:** 1 mg, 5 mg, 10 mg  |
| **Bioactivity:** Paricalcitol-D6 is the deuterated form of Paricalcitol(Zemplar), which is a drug used for the prevention and treatment of secondary hyperparathyroidism (excessive secretion of parathyroid hormone) associated with chronic renal failure. IC50 value: Target: Vd analog Chemically, it is...  |
| **Purity:** 99.64%  
**Clinical Data:** No Development Reported  
**Size:** 1 mg, 5 mg, 10 mg  |

| **Secalciferol**  
**Cat. No.: HY-32343** | **Seocalcitol**  
**Cat. No.: HY-32341** |
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong> Secalciferol is a metabolite of Vitamin D, a possibly anti-inflammatory steroid which is involved in bone ossification.</td>
<td></td>
</tr>
</tbody>
</table>
| **Purity:** 98.58%  
**Clinical Data:** No Development Reported  
**Size:** 1 mg, 5 mg  |
| **Bioactivity:** Seocalcitol is a vitamin D analog, binds vitamin D receptor protein from human osteosarcoma MG-63 cells with $K_d$ of 0.27 nM.  |
| **Purity:** 98.67%  
**Clinical Data:** Phase 3  
**Size:** 1 mg, 5 mg  |

| **Tacalcitol**  
**Cat. No.: HY-32337** | **Tacalcitol monohydrate**  
**Cat. No.: HY-32338** |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong> Tacalcitol (1,24(R)-Dihydroxyvitamin D3; 1,25-R,24R-Dihydroxyvitamin D3) promotes normal bone development by regulating calcium.</td>
<td></td>
</tr>
</tbody>
</table>
| **Purity:** 98.88%  
**Clinical Data:** Launched  
**Size:** 1 mg, 5 mg, 10 mg, 25 mg  |
| **Bioactivity:** Tacalcitol monohydrate (1,24(R)-Dihydroxyvitamin D3 monohydrate) promotes normal bone development by regulating calcium.  |
| **Purity:** >98%  
**Clinical Data:** Launched  
**Size:** 1 mg, 5 mg  |
**VD2-D3**

Cat. No.: HY-15330

**Bioactivity:** VD2-D3 is a deuterated form of vitamin D.

**Purity:** 95.75%

**Clinical Data:** No Development Reported

**Size:** 1 mg, 5 mg

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**VD3-D6**

(Vitamin D3-26,26,26,27,27,27-d6)

Cat. No.: HY-15331

**Bioactivity:** VD3-D6(Vitamin D3-26,26,26,27,27,27-d6) is the deuterated form of Vitamin D3; tools for determination of Vitamin D3 metabolites in human serum.

**Purity:** 98.0%

**Clinical Data:** No Development Reported

**Size:** 1 mg, 5 mg

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**Vitamin D2**

(Ergocalciferol; Calciferol; Ercalciol)

Cat. No.: HY-76542

**Bioactivity:** Vitamin D2 (Ergocalciferol) is a form of vitamin D, used as a vitamin D supplement. Target: Ergocalciferol is a secosteroid formed by a photochemical bond breaking of a steroid, specifically, by the action of ultraviolet light on ergosterol.

**Purity:** 98.0%

**Clinical Data:** Launched

**Size:** 10mM x 1mL in DMSO, 5 g. 10 g

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**Vitamin D4**

Cat. No.: HY-75958

**Bioactivity:** Vitamin D4 is the active analogue of Vitamin D.

**Purity:** 99.62%

**Clinical Data:** No Development Reported

**Size:** 1 mg, 5 mg. 10 mg, 50 mg