Glucocorticoid Receptor

Glucocorticoid Receptor (GR, or GCR) also known as NR3C1 (nuclear receptor subfamily 3, group C, member 1) is the receptor to which cortisol and other glucocorticoids bind. The GR is expressed in almost every cell in the body and regulates genes controlling the development, metabolism, and immune response. When the glucocorticoid receptor binds to glucocorticoids, its primary mechanism of action is the regulation of gene transcription. The unbound receptor resides in the cytosol of the cell. After the receptor is bound to glucocorticoid, the receptor-glucocorticoid complex can take either of two paths. The activated GR complex up-regulates the expression of anti-inflammatory proteins in the nucleus or represses the expression of pro-inflammatory proteins in the cytosol by preventing the translocation of other transcription factors from the cytosol into the nucleus. Dexamethasone is an agonist, and RU486 and cyproterone acetate are antagonists of the GR. Also, progesterone and DHEA have antagonist effects on the GR.
## Glucocorticoid Receptor Inhibitors & Modulators

### (20S)-Protopanaxatriol (20(S)-APPT; g-PPT)  
**Cat. No.: HY-N0835**

- **Bioactivity:** (20S)-Protopanaxatriol (g-PPT) is a metabolite of ginsenoside, protopanaxatriol (g-PPT), could modulate endothelial cell functions through the glucocorticoid receptor (GR) and oestrogen receptor (ER).
- **Purity:** >98.0%
- **Clinical Data:** No Development Reported
- **Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

### AL 082D06 (D06; D-06)  
**Cat. No.: HY-15709**

- **Bioactivity:** AL 082D06 is a selective, nonsteroidal glucocorticoid receptor (GR) antagonist with $K_i$ of 210 nM.
- **Purity:** >98%
- **Clinical Data:** No Development Reported
- **Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

### Amcinonide (CL-34699)  
**Cat. No.: HY-B1197**

- **Bioactivity:** Amcinonide inhibit NO release from activated microglia with IC50 3.38 nM. Amcinonide has affinity for the glucocorticoid receptor.
- **Purity:** >98%
- **Clinical Data:** Launched
- **Size:** 100 mg

### Beclometasone (Beclomethasone)  
**Cat. No.: HY-B1540**

- **Bioactivity:** Beclometasone (Beclomethasone) is a prototype glucocorticoid receptor agonist.
- **Purity:** >98%
- **Clinical Data:** Launched
- **Size:** 10mM x 1mL in DMSO, 25 mg, 50 mg, 100 mg

### Beclometasone dipropionate  
**Cat. No.: HY-13571A**

- **Bioactivity:** Beclometasone dipropionate is a potent glucocorticoid agonist; it is a prodrug of the free form, beclometasone.
- **Purity:** 99.90%
- **Clinical Data:** Launched
- **Size:** 10mM x 1mL in DMSO, 250 mg

### Betamethasone  
**Cat. No.: HY-13570**

- **Bioactivity:** Betamethasone is a glucocorticoid steroid with anti-inflammatory and immunosuppressive properties.
- **Purity:** 99.24%
- **Clinical Data:** Launched
- **Size:** 10mM x 1mL in DMSO, 100 mg, 500 mg

### Betamethasone dipropionate (Betamethasone 17,21-dipropionate)  
**Cat. No.: HY-13571**

- **Bioactivity:** Betamethasone dipropionate is a glucocorticoid steroid with anti-inflammatory and immunosuppressive abilities.
- **Purity:** 99.12%
- **Clinical Data:** No Development Reported
- **Size:** 10mM x 1mL in DMSO, 250 mg, 1 g

### Budesonide  
**Cat. No.: HY-13580**

- **Bioactivity:** Budesonide is a glucocorticoid used in the management of asthma.
- **Purity:** 98.28%
- **Clinical Data:** Launched
- **Size:** 10mM x 1mL in DMSO, 100 mg, 200 mg, 500 mg

### Ciclesonide (RPR251526)  
**Cat. No.: HY-B0625**

- **Bioactivity:** Ciclesonide (RPR251526) is a glucocorticoid used to treat obstructive airway diseases.
- **Purity:** >98%
- **Clinical Data:** Launched
- **Size:** 10mM x 1mL in DMSO, 10 mg, 50 mg

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**Tel:** 609-228-6898  
**Fax:** 609-228-5909  
**Email:** sales@medchemexpress.com
**Clobetasol propionate**  
Cat. No.: HY-13600

**Bioactivity:** Clobetasol propionate is a anti-inflammatory corticosteroid used to treat various skin disorders.

**Purity:** >98%  
**Clinical Data:** Launched  
**Size:** 10mM x 1mL in DMSO, 100 mg, 200 mg, 500 mg

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**Cortisone** (17-Hydroxy-11-dehydrocorticosterone; Kendall’s compound E)  
Cat. No.: HY-17461

**Bioactivity:** Cortisone is a 21-carbon steroid hormone. Cortisone is one of the main hormones released by the adrenal gland in response to stress.

**Purity:** 98.08%  
**Clinical Data:** Launched  
**Size:** 10mM x 1mL in DMSO, 100 mg, 500 mg

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**Cortisone acetate**  
(Cortisone 21-acetate)  
Cat. No.: HY-17461A

**Bioactivity:** Cortisone acetate (17-hydroxy-11-dehydrocorticosterone), a 21-carbon steroid hormone, is one of the main hormones released by the adrenal gland in response to stress.

**Purity:** 99.26%  
**Clinical Data:** Launched  
**Size:** 10mM x 1mL in DMSO, 100 mg, 500 mg

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**Deflazacort**  
Cat. No.: HY-13609

**Bioactivity:** Deflazacort is a glucocorticoid used as an anti-inflammatory and immunosuppressant.

**Purity:** >98%  
**Clinical Data:** Launched  
**Size:** 10mM x 1mL in DMSO, 50 mg, 100 mg

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**Desonide**  
Cat. No.: HY-B0248

**Bioactivity:** Desonide is a nonfluorinated corticosteroid anti-inflammatory agent used topically for dermatoses.

**Purity:** >98%  
**Clinical Data:** Launched  
**Size:** 10mM x 1mL in DMSO, 10 mg, 50 mg

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**Dexamethasone**  
(MK 125; NSC 34521; Prednisolone F)  
Cat. No.: HY-14648

**Bioactivity:** Dexamethasone is a glucocorticoid receptor agonist.

**Purity:** 98.70%  
**Clinical Data:** Launched  
**Size:** 10mM x 1mL in DMSO, 1 g, 5 g

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**Dexamethasone acetate**  
(Dexamethasone 21-acetate)  
Cat. No.: HY-14648A

**Bioactivity:** Dexamethasone acetate is a glucocorticoid receptor agonist.

**Purity:** 99.34%  
**Clinical Data:** Launched  
**Size:** 10mM x 1mL in DMSO, 1 g, 5 g

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**Flunisolide**  
Cat. No.: HY-B1121

**Bioactivity:** Flunisolide is a corticosteroid often used to treat allergic rhinitis. The principal mechanism of action of Flunisolide is to activate glucocorticoid receptors, meaning it has an anti-inflammatory action.

**Purity:** 99.61%  
**Clinical Data:** Launched  
**Size:** 10mM x 1mL in DMSO, 100 mg

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**Fluocinolone Acetonide**  
Cat. No.: HY-B0415

**Bioactivity:** Fluocinolone Acetonide is a glucocorticoid derivative used topically in the treatment of various skin disorders.

**Purity:** >98%  
**Clinical Data:** Launched  
**Size:** 10mM x 1mL in DMSO, 1 g, 5 g
<table>
<thead>
<tr>
<th><strong>Fluocinonide</strong></th>
<th>Cat. No.: HY-80485</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>Fluocinonide (Vanos) is a potent glucocorticoid steroid used topically as anti-inflammatory agent for the treatment of skin disorders.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>&gt; 98%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>Launched</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10mM x 1mL in DMSO, 1 g, 5 g</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Fluticasone propionate</strong></th>
<th>Cat. No.: HY-B0154</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>Fluticasone propionate is a high affinity, selective GR (glucocorticoid receptor) agonist which is derived from fluticasone used to treat asthma and allergic rhinitis.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>99.77%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>Launched</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10mM x 1mL in DMSO, 10 mg, 50 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Glucocorticoid receptor agonist</strong></th>
<th>Cat. No.: HY-14234</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>Glucocorticoid receptor agonist is a potent Glucocorticoid receptor agonist.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>&gt;98%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>No Development Reported</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10mM x 1mL in DMSO, 5 mg, 10 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Hydrocortisone</strong> (Cortisol)</th>
<th>Cat. No.: HY-N0583</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>Hydrocortisone is a steroid hormone or glucocorticoid secreted by the adrenal cortex.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>&gt;98.0%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>Launched</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10mM x 1mL in DMSO, 1 g, 5 g</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Hydrocortisone acetate</strong> (Hydrocortisone 21-acetate)</th>
<th>Cat. No.: HY-B1183</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>Hydrocortisone acetate is a corticosteroid, used to decrease swelling, itching, and pain that is caused by minor skin irritations or by hemorrhoids.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>99.07%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>Launched</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10mM x 1mL in DMSO, 100 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Hydrocortisone phosphate</strong> (Hydrocortisone 21-phosphate)</th>
<th>Cat. No.: HY-B1155</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>Hydrocortisone phosphate is the pharmaceutical term for cortisol, which is a steroid hormone, in the glucocorticoid class of hormones, increases blood sugar through gluconeogenesis, to suppress the immune system, and to aid in the metabolism of fat, protein, and carbohydrate.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>&gt;98%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>Launched</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>50 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Loteprednol Etabonate</strong></th>
<th>Cat. No.: HY-17358</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>Loteprednol Etabonate is an anti-inflammatory corticosteroid used in optometry and ophthalmology.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>&gt;98.0%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>Launched</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10mM x 1mL in DMSO, 10 mg, 100 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Meprednisone</strong></th>
<th>Cat. No.: HY-80243</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>Meprednisone is a glucocorticoid and a methylated derivative of prednisone</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>&gt;98%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>Launched</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10mM x 1mL in DMSO, 10 mg, 100 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Methylprednisolone</strong> (U 7532)</th>
<th>Cat. No.: HY-80260</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>Methylprednisolone is a synthetic corticosteroid with anti-inflammatory and immunomodulating properties</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>99.32%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>Launched</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10mM x 1mL in DMSO, 100 mg, 500 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Mifepristone</strong> (RU486; RU 38486)</th>
<th>Cat. No.: HY-13683</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>Mifepristone is a progesterone receptor (PR) antagonist (IC_{50}=0.2 nM) in a T47D cell-based assay, also is a glucocorticoid receptor (GR) antagonist (IC_{50}=2.6 nM) in an A549 cell-based assay.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>98.17%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>Launched</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10mM x 1mL in DMSO, 100 mg, 500 mg</td>
</tr>
</tbody>
</table>
Mometasone furoate  
(Sch32088)  
Cat. No.: HY-13693  

**Bioactivity:** Mometasone furoate, prodrug of the free form mometasone, is an agent with high affinity for the glucocorticoid receptor.

**Purity:** >98%  
**Clinical Data:** Launched  
**Size:** 10mM x 1mL in DMSO, 50 mg, 100 mg, 200 mg, 500 mg

Prednisolone  
Cat. No.: HY-17463  

**Bioactivity:** Prednisolone is a glucocorticoid with the general properties of the corticosteroids.

**Purity:** 99.86%  
**Clinical Data:** Launched  
**Size:** 10mM x 1mL in DMSO, 1 g, 5 g

Prednisolone disodium phosphate  
(Prednisolone 21-phosphate disodium)  
Cat. No.: HY-B0645  

**Bioactivity:** Prednisolone disodium phosphate is a synthetic glucocorticoid with anti-inflammatory and immunomodulating properties.

**Purity:** >98%  
**Clinical Data:** Launched  
**Size:** 100 mg, 500 mg

Prednisone  
(Dehydrocortisone)  
Cat. No.: HY-B0214  

**Bioactivity:** Prednisone (Adasone) is a synthetic corticosteroid agent that is particularly effective as an immunosuppressant compound.

**Purity:** >98.0%  
**Clinical Data:** Launched  
**Size:** 10mM x 1mL in DMSO, 1 g, 5 g

Triamcinolone  
Cat. No.: HY-B0328  

**Bioactivity:** Triamcinolone is a long-acting synthetic corticosteroid.

**Purity:** 99.15%  
**Clinical Data:** Launched  
**Size:** 10mM x 1mL in DMSO, 100 mg, 500 mg

Triamcinolone acetonide  
Cat. No.: HY-B0636  

**Bioactivity:** Triamcinolone Acetonide is a more potent type of triamcinolone, being about 8 times as effective as prednisone.

**Purity:** 99.96%  
**Clinical Data:** Launched  
**Size:** 10mM x 1mL in DMSO, 1 g, 5 g

Triamcinolone benetonide  
Cat. No.: HY-U00043  

**Bioactivity:** Triamcinolone benetonide is a synthetic glucocorticoid corticosteroid with anti-inflammatory activity.

**Purity:** >98%  
**Clinical Data:** No Development Reported  
**Size:** 1 mg, 5 mg, 10 mg, 20 mg