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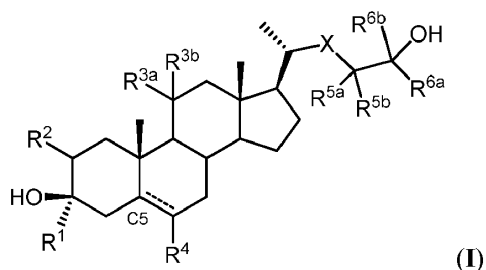
(54)	Title	NEUROACTIVE STEROIDS AND METHODS OF USE THEREOF
(56)	References Cited:	WO-A1-2013/036835, US-A- 5 925 630, CONNICK J H ET AL: "Org (1) potentiates NMDA-receptor mediated responses in vivo", 2009 NEUROSCIENCE MEETING PLANNER. CHICAGO, IL; OCTOBER 17 - 21, 2009, SOCIETY FOR NEUROSCIENCE, no. Program#/Poster#: 613 1/B86, 17 October 2009 (2009-10-17), pages 1-2, XP002686783,, XILOURI ET AL: "Neuroprotective effects of steroid analogues on P19-N neurons", NEUROCHEMISTRY INTERNATIONAL, PERGAMON PRESS, OXFORD, GB, vol. 50, no. 4, 2 March 2007 (2007-03-02), pages 660-670, XP005911048, ISSN: 0197-0186, DOI: 10.1016/J.NEUINT.2006.12.010, YOON-SEOK ROH ET AL: "Neuroprotective Effects of Ginsenoside Rg 3 against 24-OH-cholesterol-induced Cytotoxicity in Cortical Neurons", JOURNAL OF GINSENG RESEARCH, vol. 34, no. 3, 30 September 2010 (2010-09-30), pages 246-253, XP55294051, KR ISSN: 1226-8453, DOI: 10.5142/jgr.2010.34.3.246, DATABASE PUBCHEM [Online] 01 December 2012 XP055285573 Retrieved from NCBI Database accession no. 70604305, DATABASE PUBCHEM [Online] 04 December 2011 XP055285559 Retrieved from NCBI Database accession no. 54083335, DATABASE PUBCHEM [Online] 01 August 2005 XP055285563 Retrieved from NCBI

Database accession no. 65094, DATABASE PUBCHEM [Online] 19 August 2012 XP055285567 Retrieved from NCBI Database accession no. 58455549, DATABASE PUBCHEM [Online] 04 December 2011 XP055285568 Retrieved from NCBI Database accession no. 54160779, DATABASE PUBCHEM [Online] 30 November 2012 XP055285572 Retrieved from NCBI Database accession no. 66966798, S. M. PAUL ET AL: "The Major Brain Cholesterol Metabolite 24(S)-Hydroxycholesterol Is a Potent Allosteric Modulator of N-Methyl-D-Aspartate Receptors", JOURNAL OF NEUROSCIENCE, vol. 33, no. 44, 30 October 2013 (2013-10-30), pages 17290-17300, XP55293992, US ISSN: 0270-6474, DOI: 10.1523/JNEUROSCI.2619-13.2013

Enclosed is a translation of the patent claims in Norwegian. Please note that as per the Norwegian Patents Acts, section 66i the patent will receive protection in Norway only as far as there is agreement between the translation and the language of the application/patent granted at the EPO. In matters concerning the validity of the patent, language of the application/patent granted at the EPO will be used as the basis for the decision. The patent documents published by the EPO are available through Espacenet (<http://worldwide.espacenet.com>) or via the search engine on our website here: <https://search.patentstyret.no/>

Patentkrav

1. Forbindelse med formel (I):



eller et farmasøytisk akseptabelt salt derav;

hvor:

R^1 er substituert eller usubstituert alifatisk;

R^2 er hydrogen, halogen, substituert eller usubstituert C_{1-6} alkyl, substituert eller usubstituert syklopropyl, eller $-OR^{A2}$, hvori R^{A2} er hydrogen eller substituert eller usubstituert alkyl;

R^{3a} er hydrogen eller $-OR^{A3}$, hvori R^{A3} er hydrogen eller substituert eller usubstituert alkyl, og R^{3b} er hydrogen; eller R^{3a} og R^{3b} forenes for å danne en oksogruppe ($=O$ -gruppe);

R^4 er hydrogen, substituert eller usubstituert alkyl, eller halogen;

X er $-C(R^X)_2-$ eller $-O-$, hvori R^X er hydrogen eller fluor, eller én R^X -gruppe og R^{5b} forenes for å danne en dobbeltbinding;

hver forekomst av R^{5a} og R^{5b} er uavhengig hydrogen eller fluor;

R^{6a} er en ikke-hydrogengruppe valgt fra gruppen som består av substituert og usubstituert alkyl, substituert og usubstituert alkenyl, substituert og usubstituert alkynyl, substituert og usubstituert karbosykl, substituert og usubstituert heterosykl, substituert og usubstituert aryl og substituert og usubstituert heteroarylgruppe, hvori ikke-hydrogengruppen eventuelt er substituert med fluor; og

R^{6b} er hydrogen eller en substituert eller usubstituert alkylgruppe eventuelt substituert med fluor;

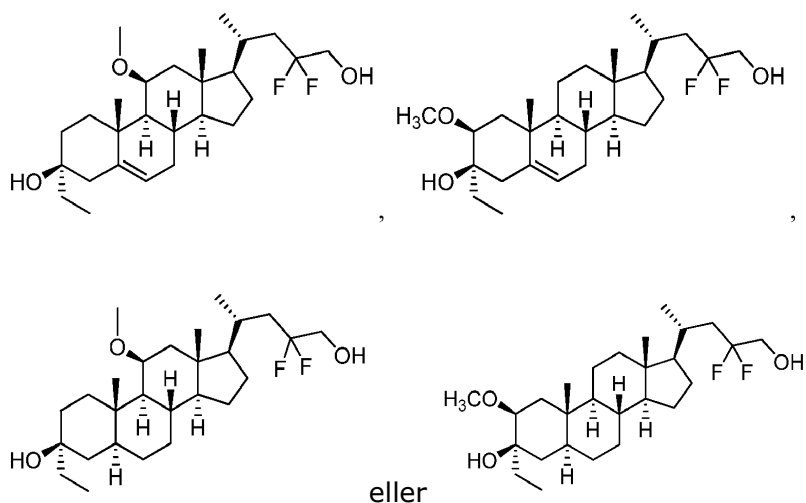
----- representerer en enkelt- eller dobbeltbinding, forutsatt at hvis en enkeltbinding er til stede, så er hydrogenet ved C5 i *alfa*-konfigurasjonen;

forutsatt at:

(1) minst én av R^X , R^{5a} og R^{5b} er fluor; eller

(2) minst én av R^{6a} og R^{6b} er en ikke-hydrogengruppe substituert med et fluor; eller

(3) R^{6a} er en ikke-hydrogengruppe som omfatter mellom to og ti karbonatomer; og videre forutsatt at forbindelsen ikke er:



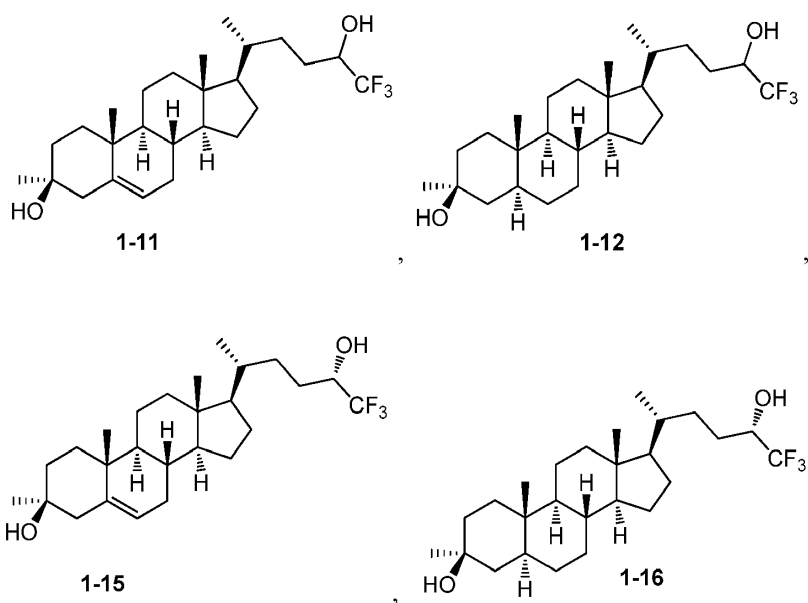
2. Forbindelsen ifølge krav 1, hvori R^1 er usubstitueret C_{1-3} alkyl; for eksempel $-CH_3$, $-CH_2CH_3$ eller $-CH_2CH_2CH_3$.

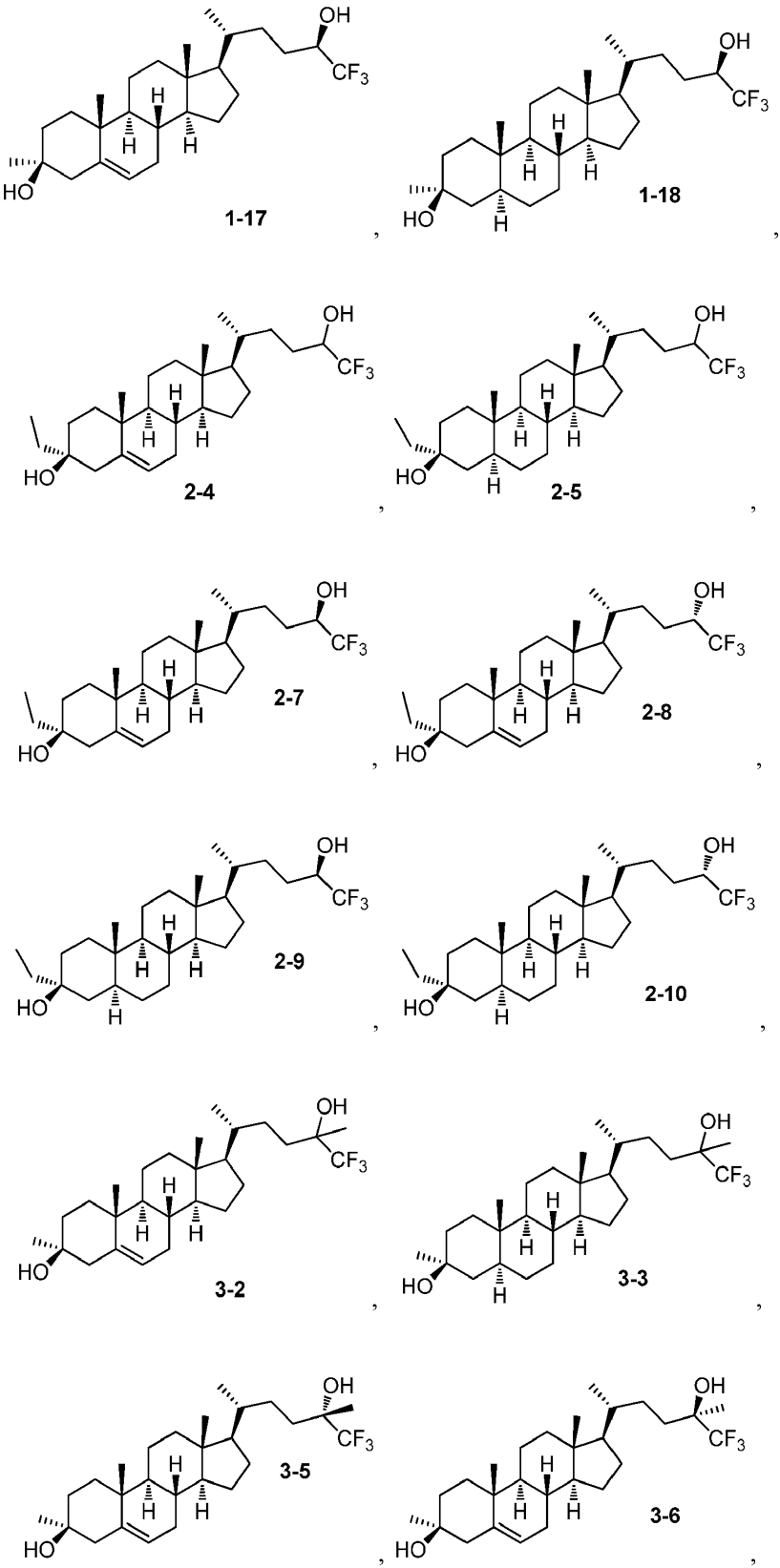
3. Forbindelsen ifølge krav 1, hvori R^2 er hydrogen.

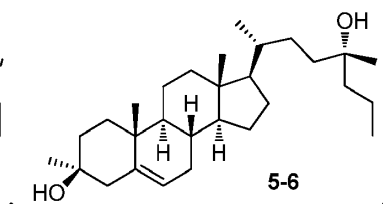
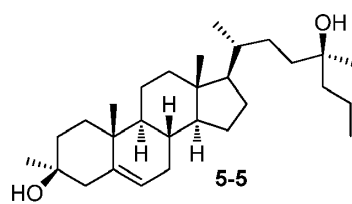
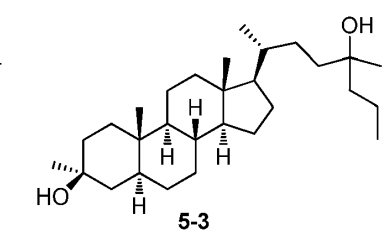
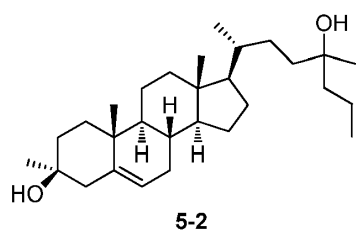
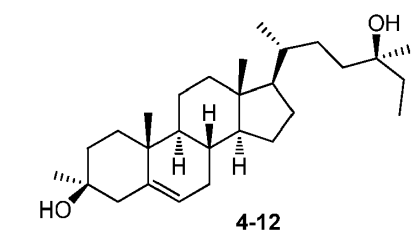
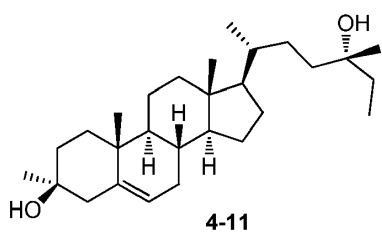
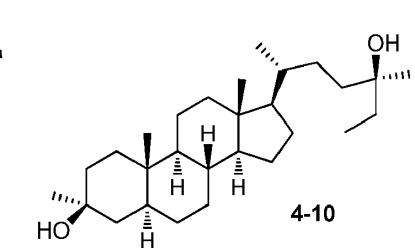
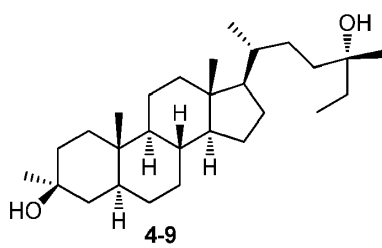
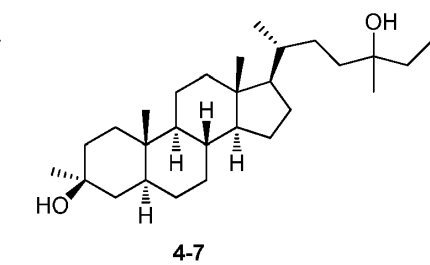
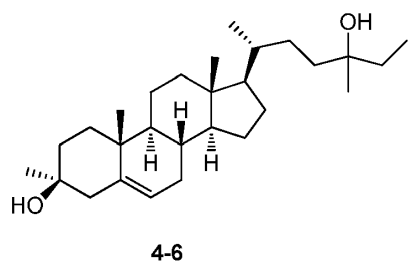
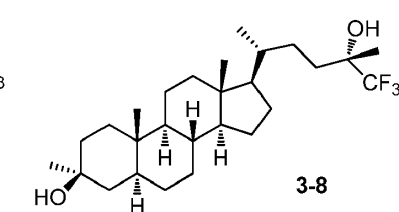
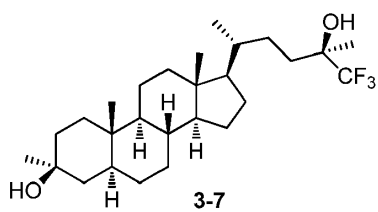
4. Forbindelsen ifølge krav 1, hvori både R^{3a} og R^{3b} er hydrogen.

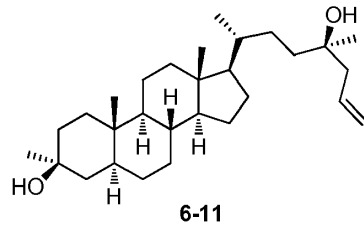
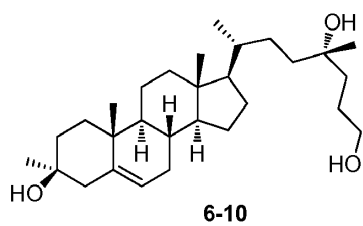
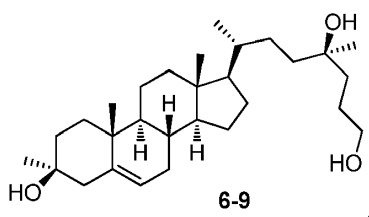
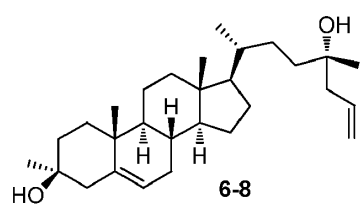
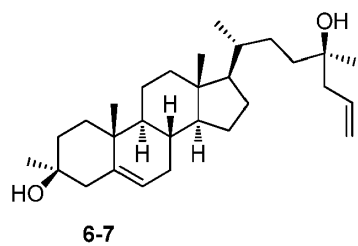
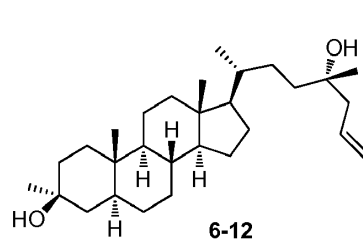
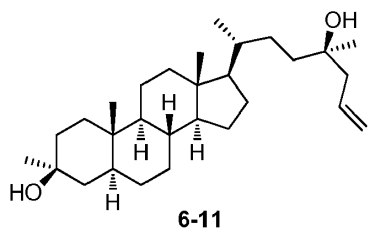
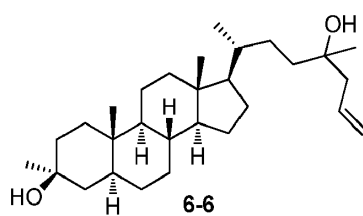
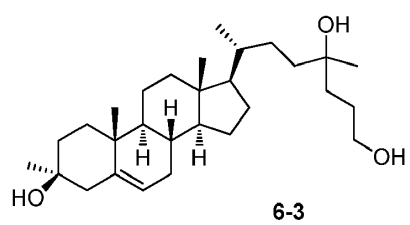
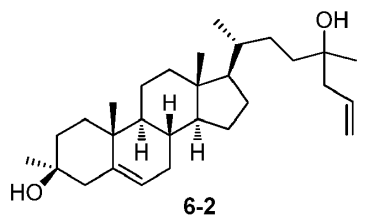
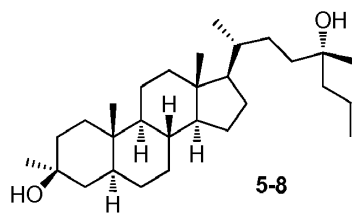
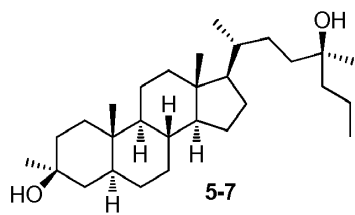
5. Forbindelsen ifølge krav 1, hvori R^4 er hydrogen.

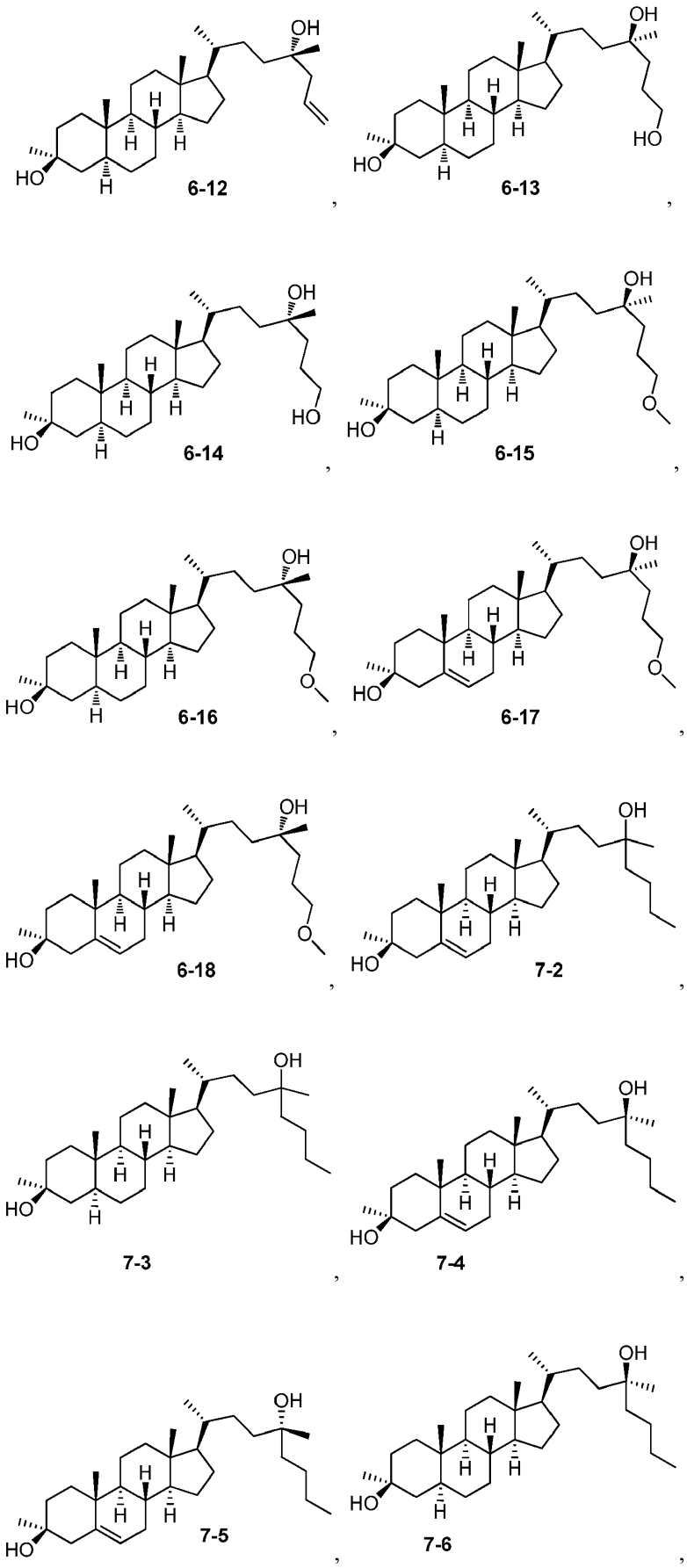
6. Forbindelsen ifølge krav 1, hvori forbindelsen er valgt fra gruppen som består af:

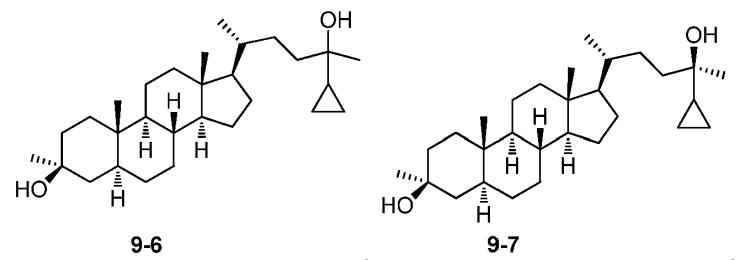
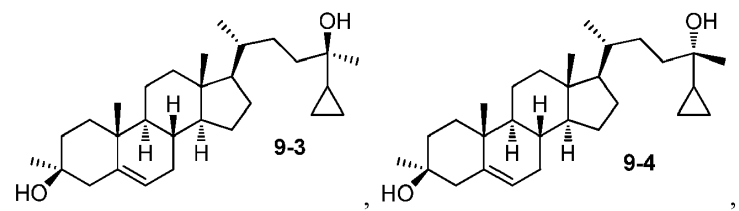
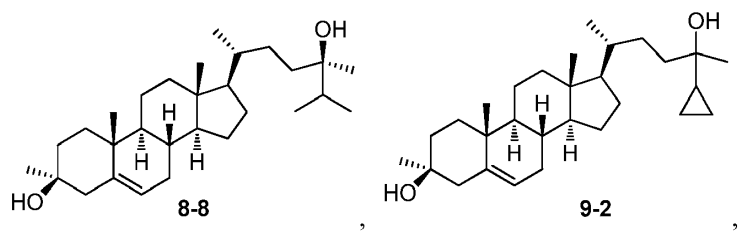
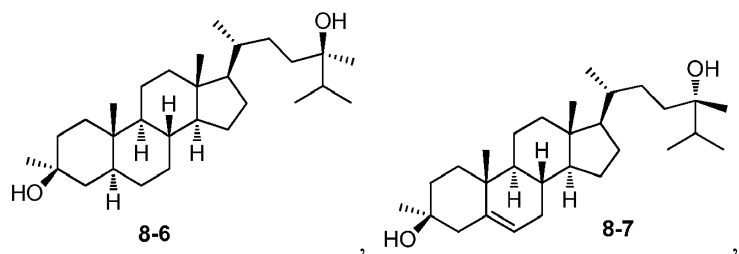
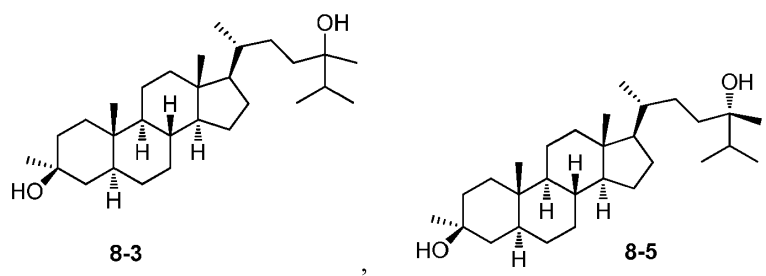
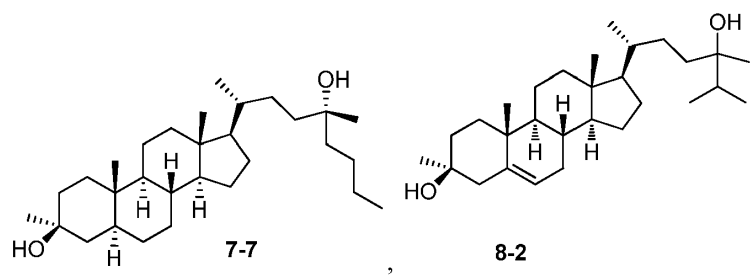


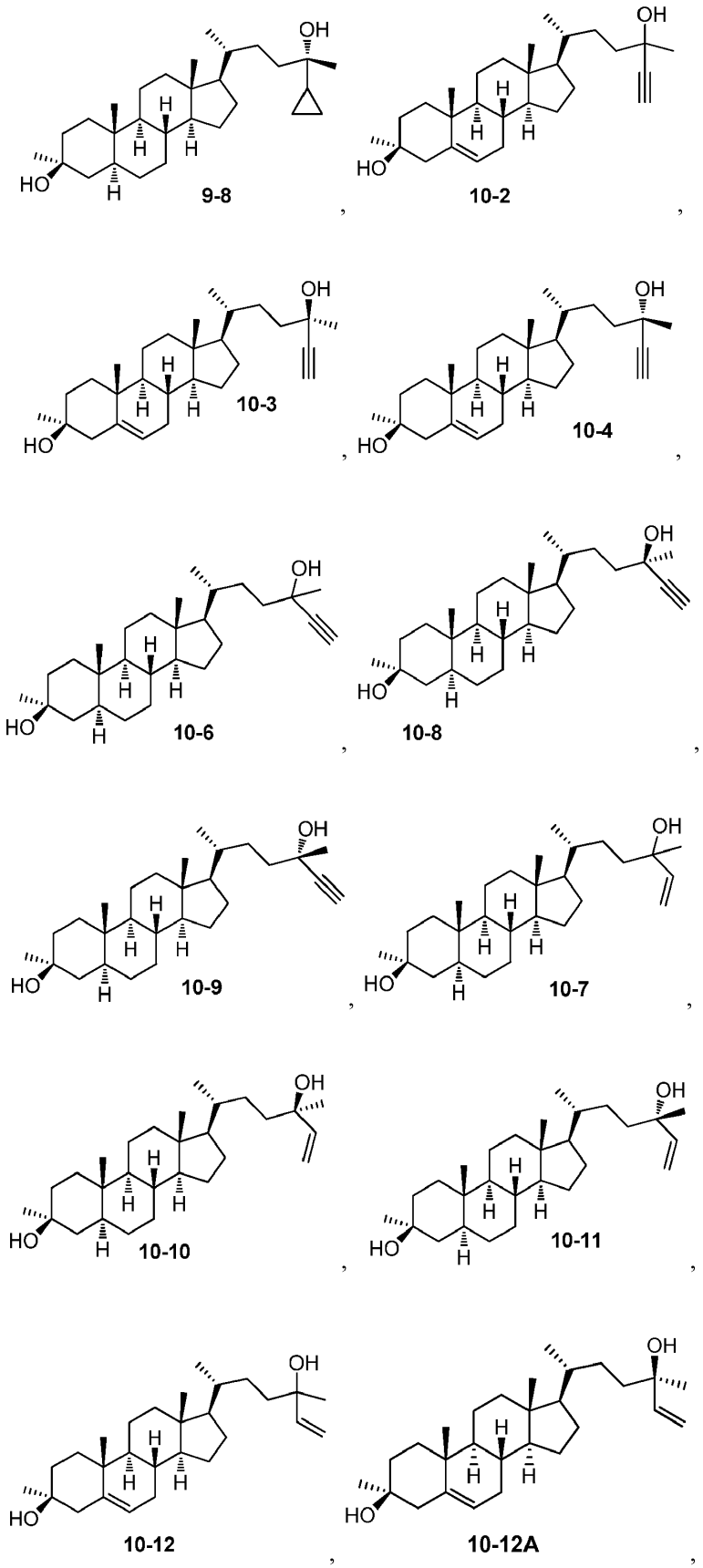


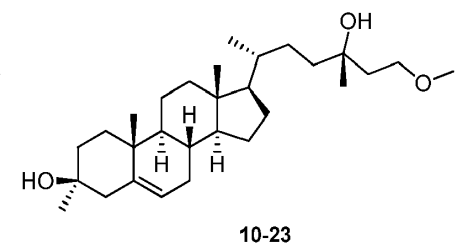
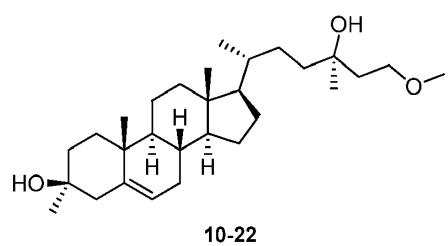
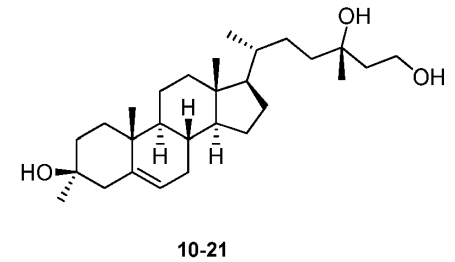
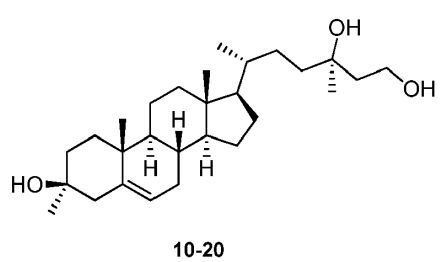
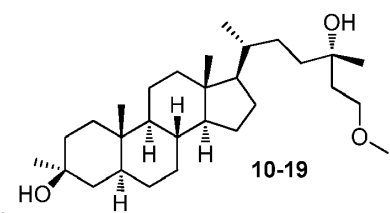
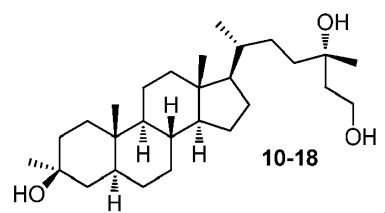
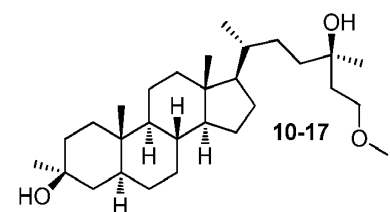
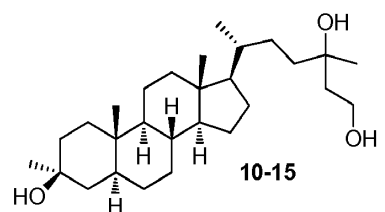
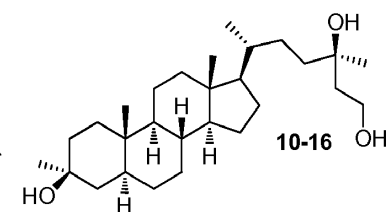
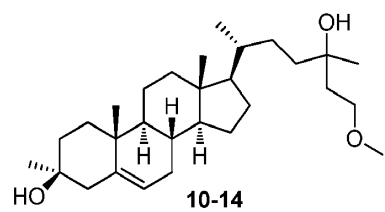
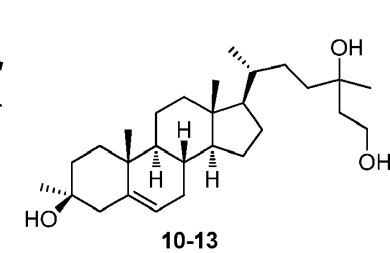
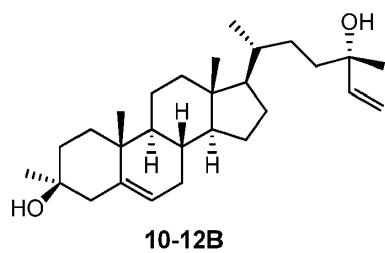


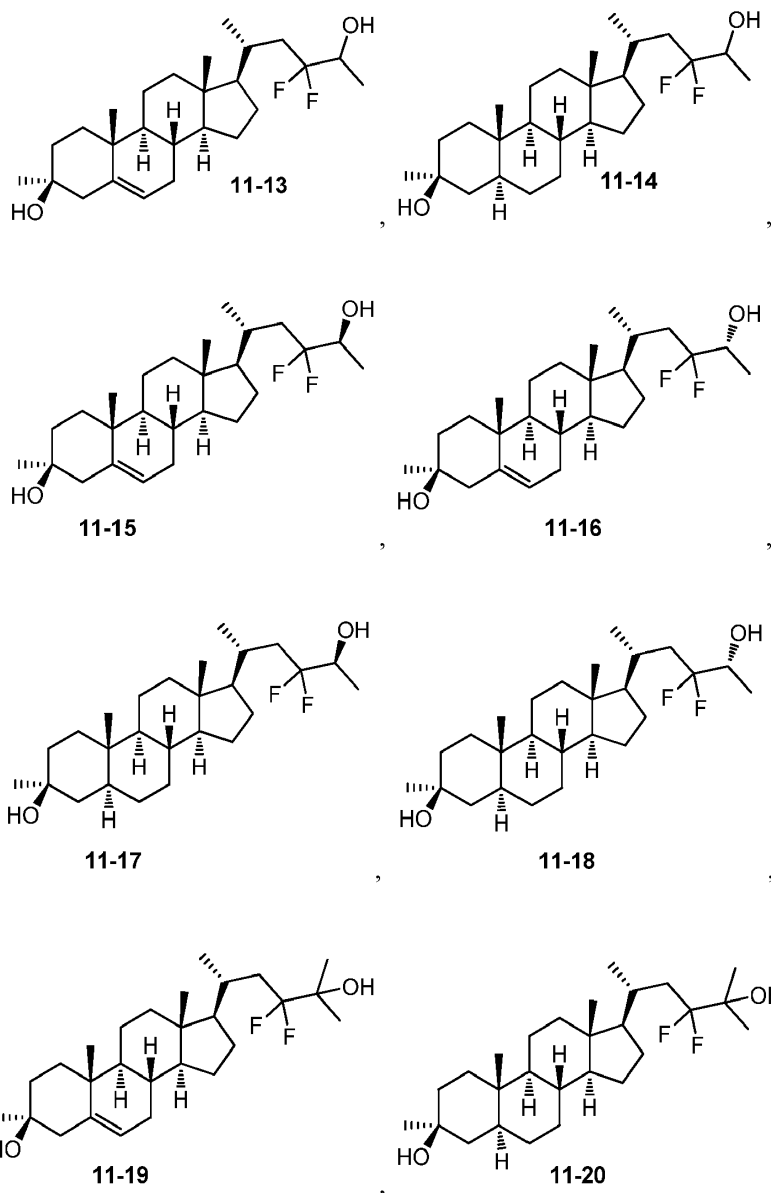






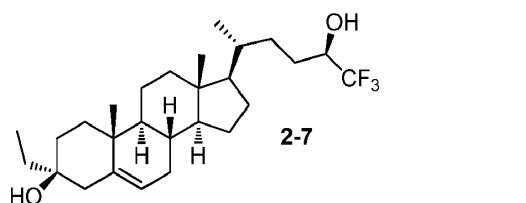






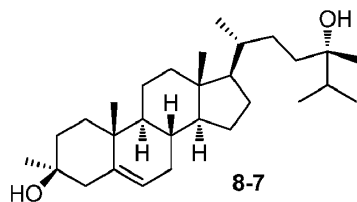
eller et farmasøytisk akseptabelt salt derav.

7. Forbindelsen ifølge krav 1, hvori forbindelsen er:



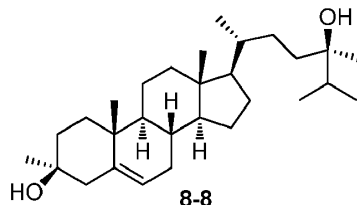
eller et farmasøytisk akseptabelt salt derav.

13. Forbindelsen ifølge krav 1, hvori forbindelsen er:



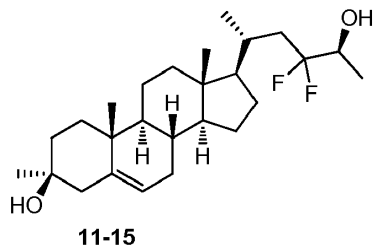
eller et farmasøytisk akseptabelt salt derav.

14. Forbindelsen ifølge krav 1, hvori forbindelsen er:



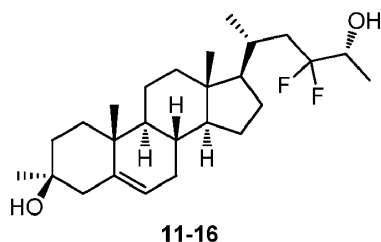
eller et farmasøytisk akseptabelt salt derav.

15. Forbindelsen ifølge krav 1, hvori forbindelsen er:



eller et farmasøytisk akseptabelt salt derav.

16. Forbindelsen ifølge krav 1, hvori forbindelsen er:



eller et farmasøytisk akseptabelt salt derav.

17. Farmasøytisk sammensetning som omfatter en forbindelse eller farmasøytisk akseptabelt salt derav ifølge et hvilket som helst av de foregående kravene, og en farmasøytisk akseptabel bærer.

18. Forbindelse eller farmasøytisk akseptabelt salt derav, eller farmasøytisk sammensetning derav, ifølge et hvilket som helst av de foregående kravene, for anvendelse ved behandling eller forebygging av en CNS-relatert tilstand; for eksempel

hvor den CNS-relaterte lidelsen er en angstlidelse (inkludert obsessiv-kompulsiv lidelse, posttraumatisk stresslidelse og sosial fobi), Alzheimers sykdom og andre former for demens, en stemningslidelse (inkludert depresjon, bipolar lidelse og dystymisk lidelse), skizofreni eller annen psykotisk lidelse (inkludert skizoaffektiv lidelse), en søvnlidelse (inkludert søvnløshet), en personlighetslidelse, en autismspektrumlidelse, Retts syndrom, smerte, en anfallslidelse, hjerneslag, traumatisk hjerneskade, Huntingtons sykdom, Parkinsons sykdom eller tinnitus.

19. Forbindelse eller farmasøytisk akseptabelt salt derav eller en farmasøytisk sammensetning derav, ifølge et hvilket som helst av kravene 1-16, for anvendelse ved behandling eller forebygging av hjerneeksitabilitet hos et individ som er mottagelig for eller rammet av en tilstand forbundet med hjerneeksitabilitet.