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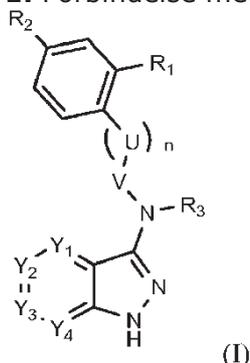
(54) Title **DERIVATIVES OF AZAINDAZOLE OR DIAZAINDAZOLE TYPE FOR TREATING PAIN**

(56) References Cited: WO-A1-2004/113303
WO-A1-2012/101239
WO-A2-2007/023110
WO-A2-2008/089307
WO-A2-2008/112695
WANG T ET AL: "Trk kinase inhibitors as new treatments for cancer and pain", EXPERT OPINION ON THERAPEUTIC PATENTS, INFORMA HEALTHCARE, GB, vol. 19, no. 3, 1 March 2009 (2009-03-01), pages 305-319, XP002557234, ISSN: 1354-3776, DOI: 10.1517/13543770902721261

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 følgende generelle formel (I):



- 5 eller et farmasøytisk akseptabelt salt eller solvat av denne, en tautomer av denne eller en stereoisomer eller blanding av stereoisomerer av denne i hvilke som helst andeler, slik som en blanding av enantiomerer, særlig en racemisk blanding,
- hvori:
- 10 - **Y₁** og **Y₄** hver representerer, uavhengig av hverandre, en CH-gruppe eller et nitrogenatom på betingelse av at minst én av **Y₁** og **Y₄** representerer et nitrogenatom,
- **Y₂** representerer en C-X-Ar gruppe,
- **Y₃** representerer en C-W gruppe,
- 15 - **Ar** representerer en aryl- eller heteroarylgruppe, eventuelt substituert med én eller flere grupper valgt fra et halogenatom, (C₁-C₆)alkyl, (C₁-C₆)haloalkyl, (C₁-C₆)haloalkoxy, (C₁-C₆)halotioalkoxy, CN, NO₂, OR₁₁, SR₁₂, NR₁₃R₁₄, CO₂R₁₅, CONR₁₆R₁₇, SO₂R₁₈, SO₂NR₁₉R₂₀, COR₂₁, NR₂₂COR₂₃, NR₂₄SO₂R₂₅ og R₂₆NR₂₇R₂₈ og/eller eventuelt fusjonert til en heterosyklus,
- 20 - **X** representerer en divalent gruppe valgt fra O, S, S(O), S(O)₂, NR₄, S(NR₄), S(O)(NR₄), S(O)₂(NR₄), NR₄S, NR₄S(O), NR₄S(O)₂, CH₂, CH₂S, CH₂S(O), CH₂S(O)₂, SCH₂, S(O)CH₂, S(O)₂CH₂, CH₂CH₂, CH=CH, C=C, CH₂O, OCH₂, NR₄CH₂, og CH₂NR₄,
- **W** representerer en R₅-, SR₅-, OR₅- eller NR₅R₆-gruppe,
- 25 - **U** representerer en CH₂- eller NH-gruppe, ett eller flere hydrogenatomer som kan erstattes av en (C₁-C₆)alkylgruppe,
- **V** representerer C(O), C(S) eller CH₂,
- **n** representerer 0 eller 1,
- **R₁** representerer et hydrogenatom eller en OR₇- eller NR₇R₈-gruppe,
- 30 - **R₂** representerer et hydrogenatom, en eventuelt substituert heterosyklus, NO₂, OR₉ eller NR₉R₁₀,

- **R₃, R₄, R₁₁** til **R₂₅** og **R₂₇** til **R₂₈** hver representerer, uavhengig av hverandre, et hydrogenatom eller en (C₁-C₆)alkylgruppe,

- **R₅** og **R₆** hver representerer, uavhengig av hverandre, et hydrogenatom eller en (C₁-C₆)alkyl-, eventuelt substituert aryl- eller eventuelt substituert benzylgruppe,

- **R₇, R₈, R₉** og **R₁₀** hver representerer, uavhengig av hverandre, et hydrogenatom eller en eventuelt substituert (C₁-C₆)alkyl- eller (C₃-C₁₂)sykloalkylgruppe eller en eventuelt substituert heterosyklus, og

- **R₂₆** representerer en (C₁-C₆)alkylgruppe,

for anvendelse i behandling eller forebygging av smerte.

2. Forbindelsen for anvendelse ifølge krav 1, **karakterisert ved at** smerten er en nociseptiv smerte, en inflammatorisk smerte, en nevropatisk smerte, en idiopatisk smerte eller en psykogen smerte, foretrukket en inflammatorisk smerte eller nevropatisk smerte.

3. Forbindelsen ifølge krav 1 eller 2, hvori smerten skyldes kreft, nerveskade eller revmatisk sykdom.

4. Forbindelsen for anvendelse ifølge et hvilket som helst av kravene 1 til 3, **karakterisert ved at:**

- **Y₁**= CH eller N, og

- **Y₄** = N.

5. Forbindelsen for anvendelse ifølge et hvilket som helst av kravene 1 til 4, **karakterisert ved at:**

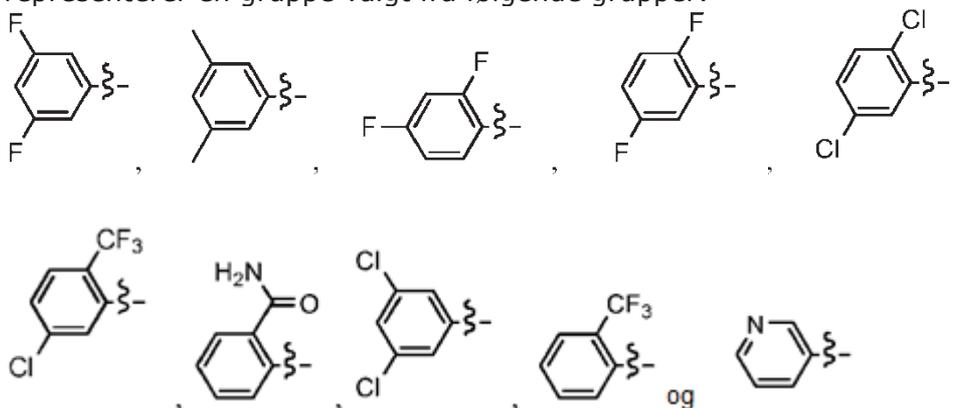
- **Y₁** representerer en CH-gruppe, og

- **Y₄** representerer et nitrogenatom.

6. Forbindelsen for anvendelse ifølge et hvilket som helst av kravene 1 til 5, **karakterisert ved at X** representerer en divalent gruppe valgt fra S, S(O), S(O)₂, NR₄, CH₂, CH₂S, CH₂S(O), CH₂S(O)₂, CH₂O, CH₂NR₄, NHS(O)₂, SCH₂, S(O)CH₂, S(O)₂CH₂, S(O)₂NH, OCH₂, NR₄CH₂, CH₂CH₂, CH=CH, og C=C; særlig fra S, S(O), S(O)₂, NR₄, CH₂, SCH₂, S(O)CH₂, S(O)₂CH₂, S(O)₂NH, CH₂CH₂, C=C, OCH₂, og NR₄CH₂; særlig fra S, S(O)₂, CH₂, SCH₂, S(O)₂CH₂, S(O)₂NH, CH₂CH₂ og C=C, hvori det første atomet i disse gruppene er bundet til atom **C** til kjede **C-X**-Ar.

7. Forbindelsen for anvendelse ifølge et hvilket som helst av kravene 1 til 6, **karakterisert ved at Ar** representerer en arylgruppe, slik som fenyyl, eventuelt substituert med én eller flere grupper valgt fra et halogenatom, (C₁-C₆)alkyl, (C₁-C₆)haloalkyl, (C₁-C₆)haloalkoksy, (C₁-C₆)halotioalkoksy, CN, NO₂, OR₁₁, SR₁₂, NR₁₃R₁₄, CO₂R₁₅ og CONR₁₆R₁₇, SO₂R₁₈, SO₂NR₁₉R₂₀, COR₂₁, NR₂₂COR₂₃ eller NR₂₄SO₂R₂₅; eller en pyridingruppe.

8. Forbindelse for anvendelse ifølge krav 7, **karakterisert ved at Ar** representerer en gruppe valgt fra følgende grupper:



9. Forbindelsen for anvendelse ifølge et hvilket som helst av kravene 1 til 8, **karakterisert ved at W** representerer en R₅-, SR₅-, OR₅- eller NR₅R₆-gruppe, der **R₅** og **R₆** representerer, uavhengig av hverandre, et hydrogenatom eller en (C₁-C₆)alkylgruppe.

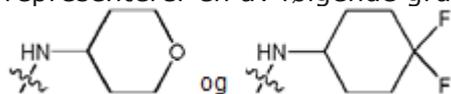
10. Forbindelse for anvendelse ifølge et hvilket som helst av kravene 1 til 9, **karakterisert ved at:**

- **R₃**=H,
- **U**=CH₂ eller NH,
- **V**=C(O) or C(S), og særlig C(O), og
- **n**=0 eller 1, og særlig 0.

11. Forbindelsen for anvendelse ifølge et hvilket som helst av kravene 1 til 10, **karakterisert ved at R₁** representerer et hydrogenatom eller en NR₇R₈-gruppe, der **R₇** representerer et hydrogenatom, og **R₈** representerer en eventuelt substituert (C₃-C₁₂)sykloalkylgruppe eller en eventuelt substituert heterosyklus.

4

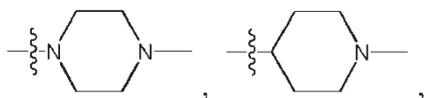
12. Forbindelsen for anvendelse ifølge krav 11, **karakteriseret ved at R₁** repræsenterer én av følgende grupper: H,



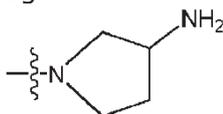
5 13. Forbindelsen for anvendelse ifølge et hvilket som helst av kravene 1 til 12, **karakteriseret ved at R₂** repræsenterer NO₂, NR₉R₁₀ eller en heterosyklus eventuelt substituert med (C₁-C₆)alkyl eller NH₂.

10 14. Forbindelsen for anvendelse ifølge krav 13, **karakteriseret ved at R₂** repræsenterer én av følgende grupper:

NH₂, NH(CH₂)₃NMe₂, NMe(CH₂)₃NMe₂, NO₂,



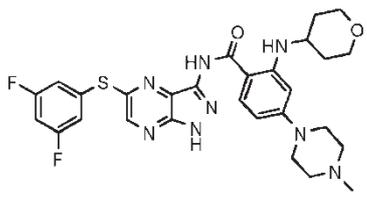
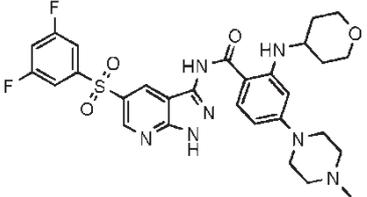
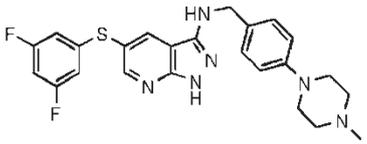
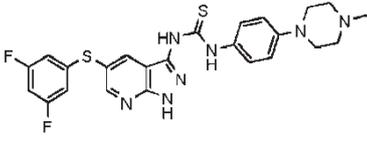
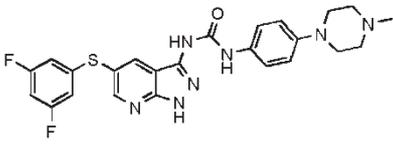
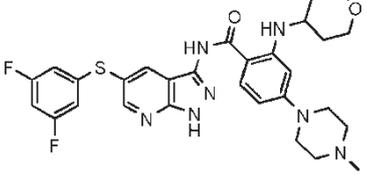
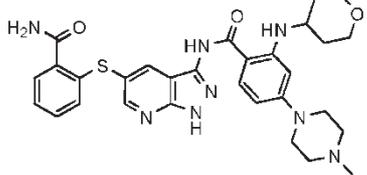
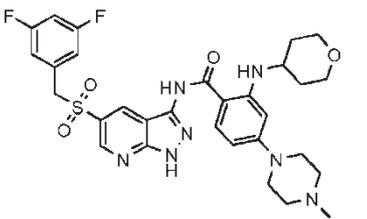
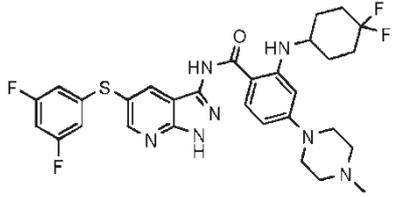
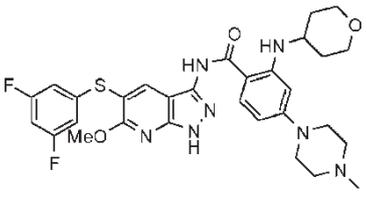
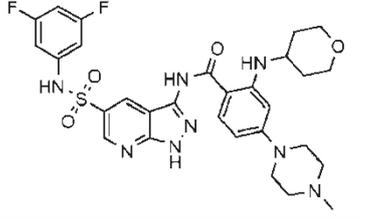
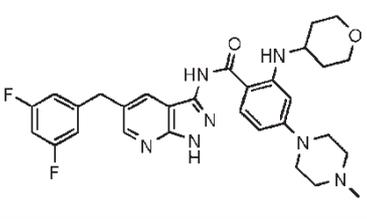
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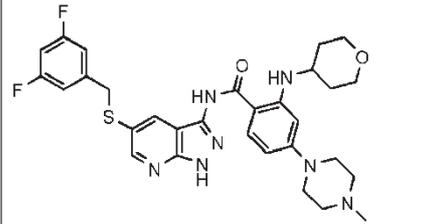
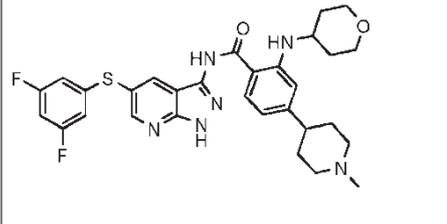
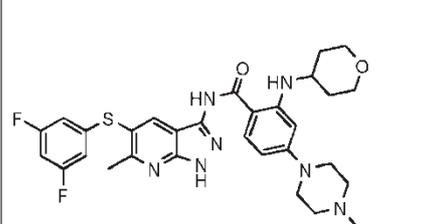
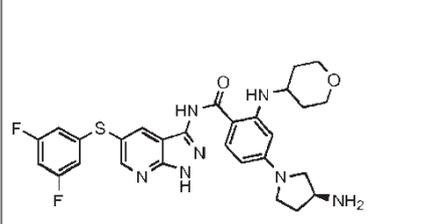
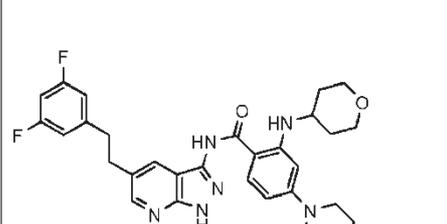
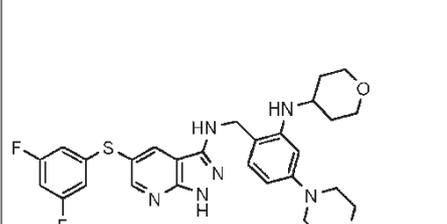
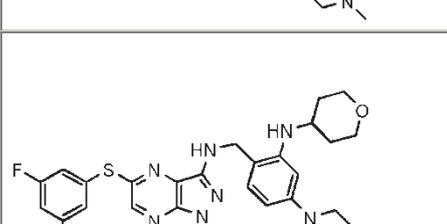
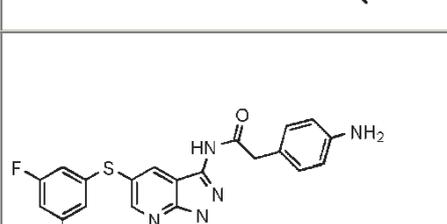
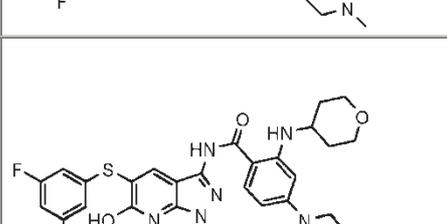
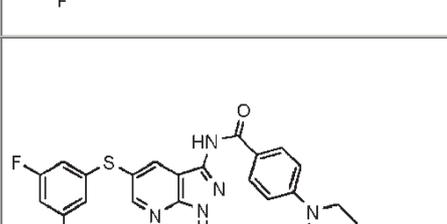
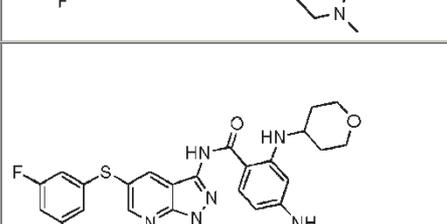
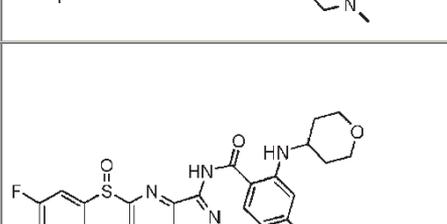
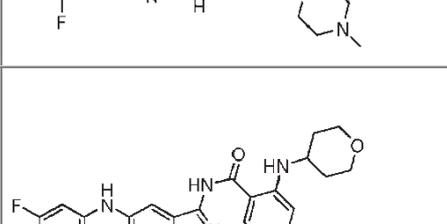


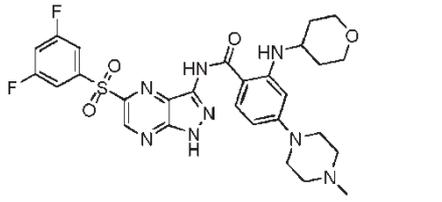
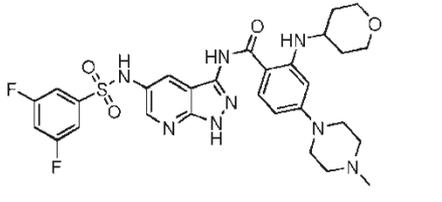
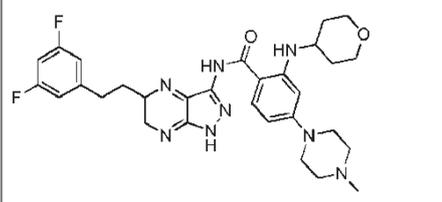
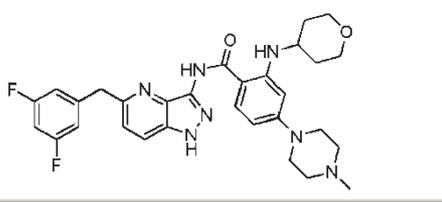
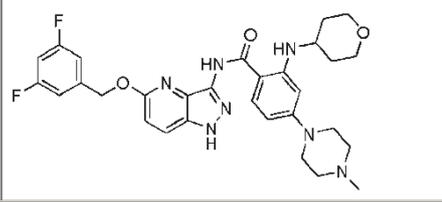
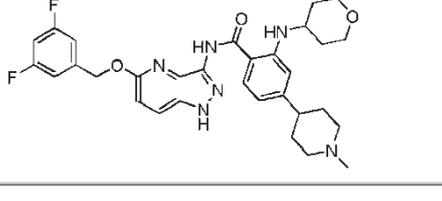
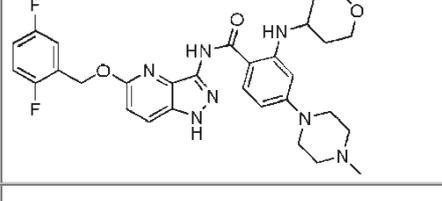
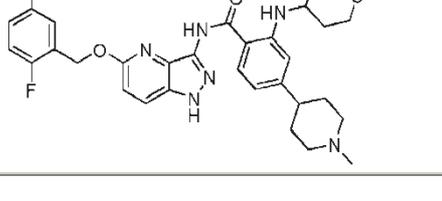
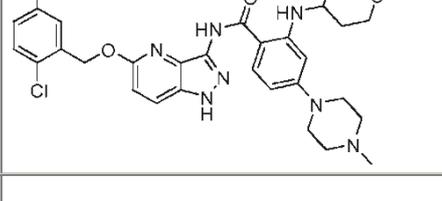
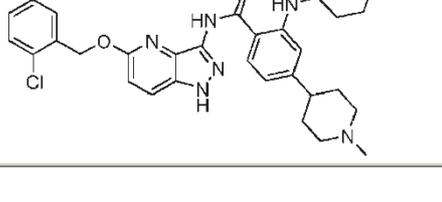
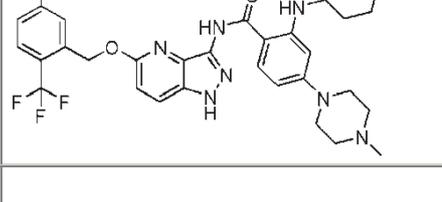
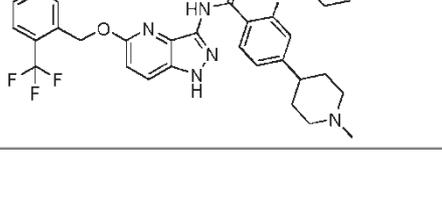
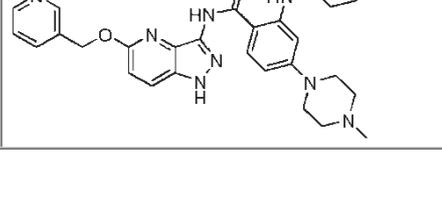
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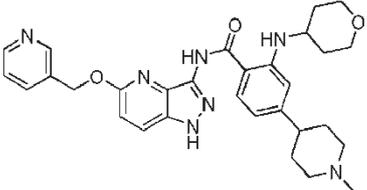
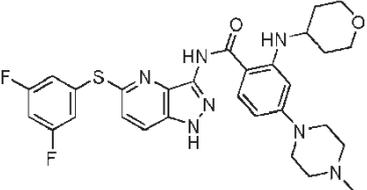
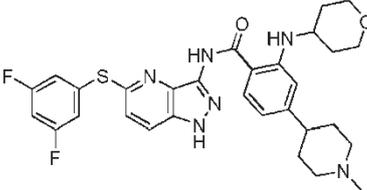
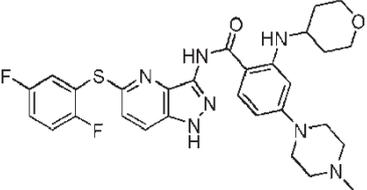
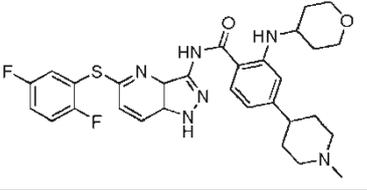
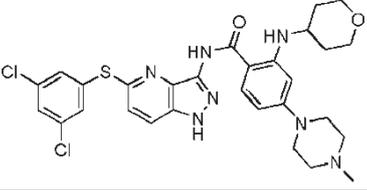
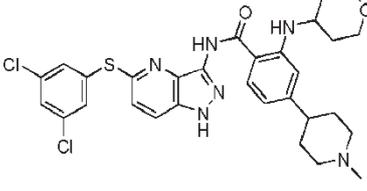
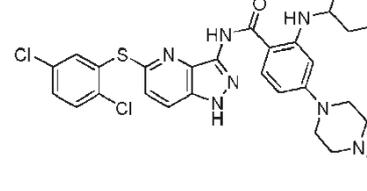
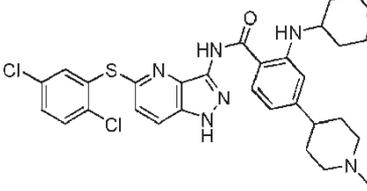
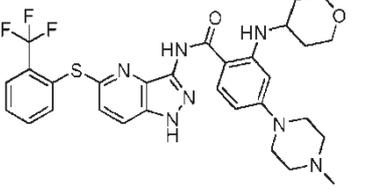
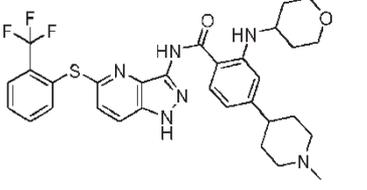
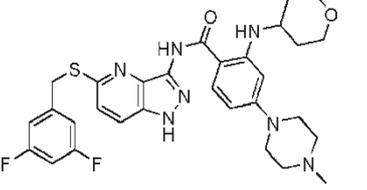
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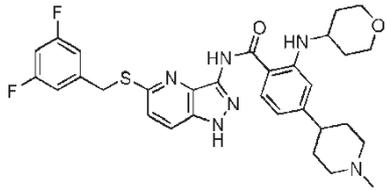
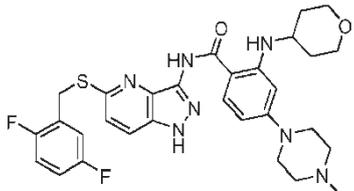
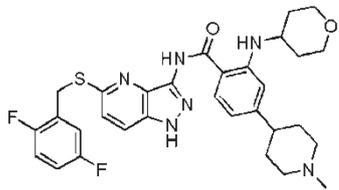
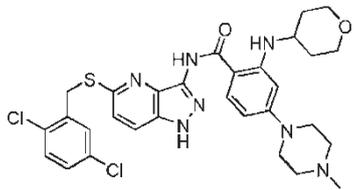
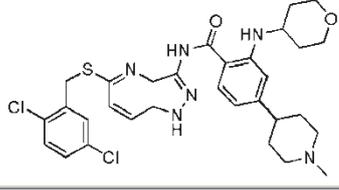
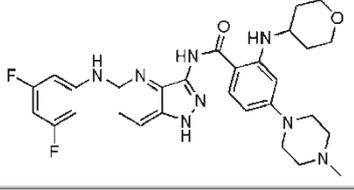
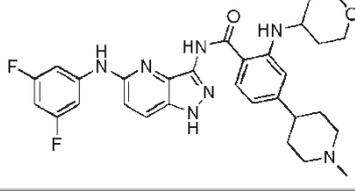
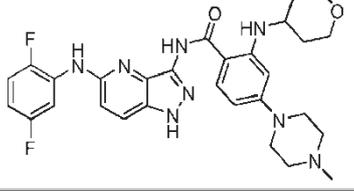
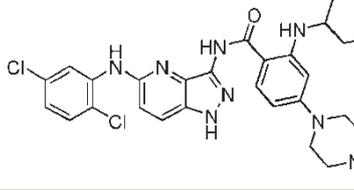
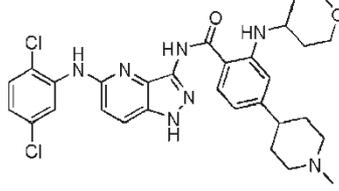
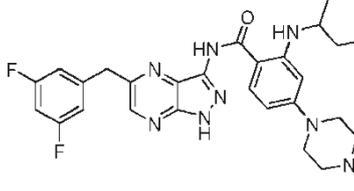
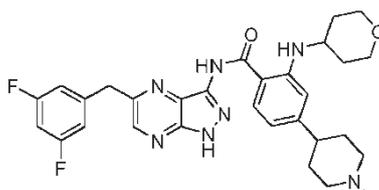
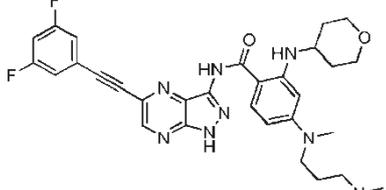
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14-11		15	
26-4		26-8	

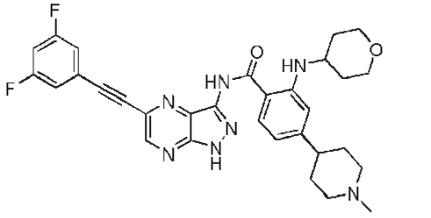
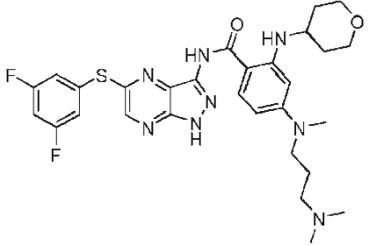
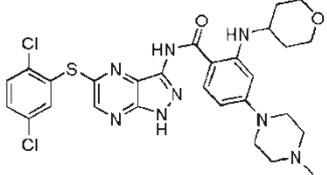
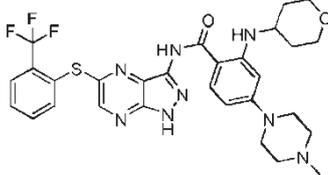
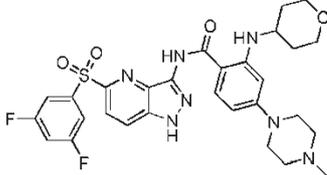
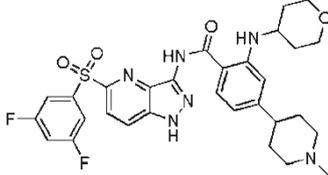
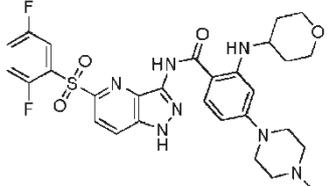
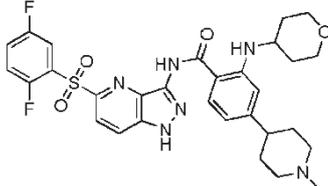
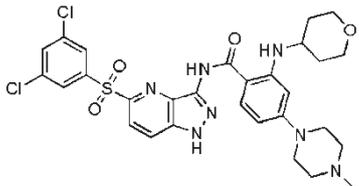
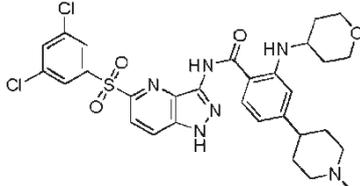
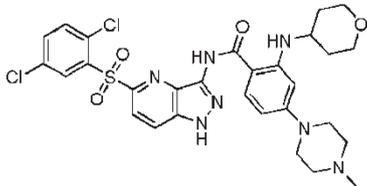
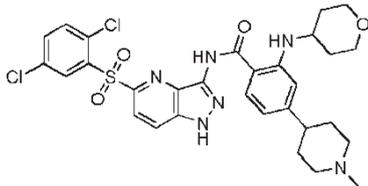
27		27-1	
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30-1		30-3	
30-4		30-5	
30-8		30-9	
30-10		30-11	

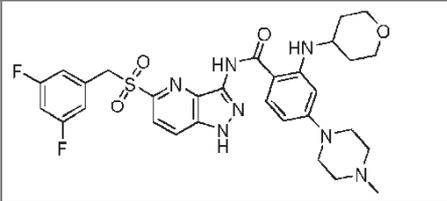
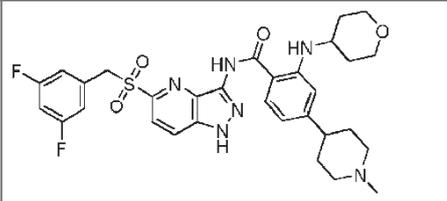
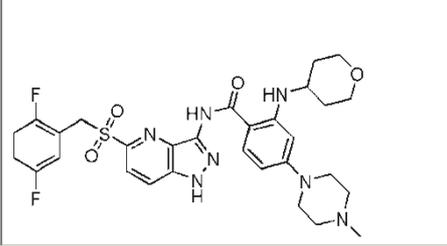
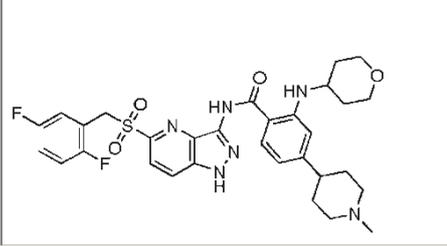
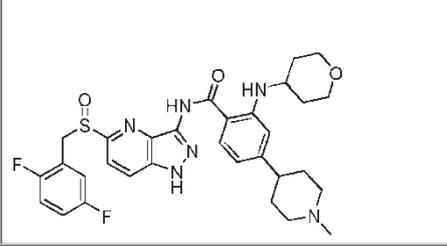
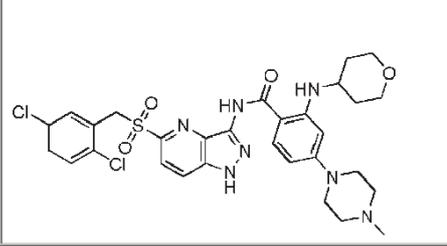
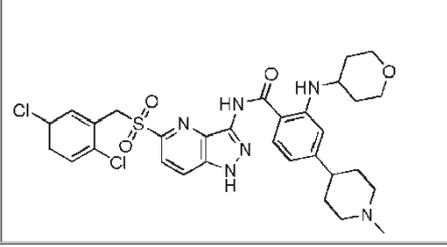
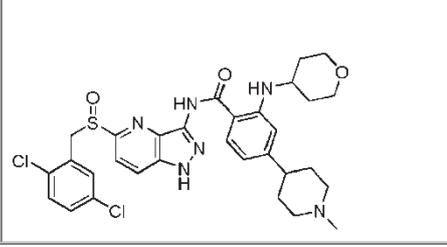
			
30-12		30-a	
31		32	
32-1		33	
35		26-12	
30-69		27-2	
27-3		14bis	

			
30-72		31-1	
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30-17		30-18	
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30-59		30-60	
30-61		30-62	

			
30-63		30-64	
30-65		30-66	
30-67		30-68	

16. Farmasøytisk sammensetning inneholdende minst én farmasøytisk akseptabel eksipient og én forbindelse ifølge et hvilket som helst av kravene 1 til 15 som virkestoff, for anvendelse som behandling eller forebygging av smerte.