Supplementary Material

Selective DNA Gyrase Inhibitors: Multi-Target *In Silico* Profiling with 3D-Pharmacophores

Tihomir Tomašič [1,*], Asta Zubrienė [2], Žiga Skok [1], Riccardo Martini [3,4], Stane Pajk [1], Izidor Sosič [1], Janez Ilaš [1], Daumantas Matulis [2], and Sharon D. Bryant [3]

[1] University of Ljubljana, Faculty of Pharmacy, Aškerčeva 7, Ljubljana, Slovenia; ziga.skok@ffa.uni-lj.si; stane.pajk@ffa.uni-lj.si; izidor.sosic@ffa.uni-lj.si; janez.ilas@ffa.uni-lj.si

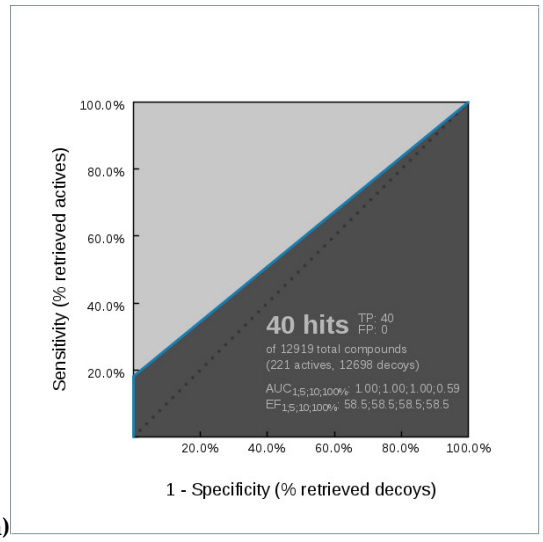
[2] Vilnius university, Life Sciences Center, Institute of Biotechnology, Department of Biothermodynamics and drug design, Saulėtekio 7, Vilnius LT-10257, Lithuania; astzu@ibt.lt; matulis@ibt.lt

[3] Inte:Ligand Softwareentwicklungs- und Consulting GmbH, Mariahilferstrasse 74B, Vienna, Austria; bryant@inteligand.com

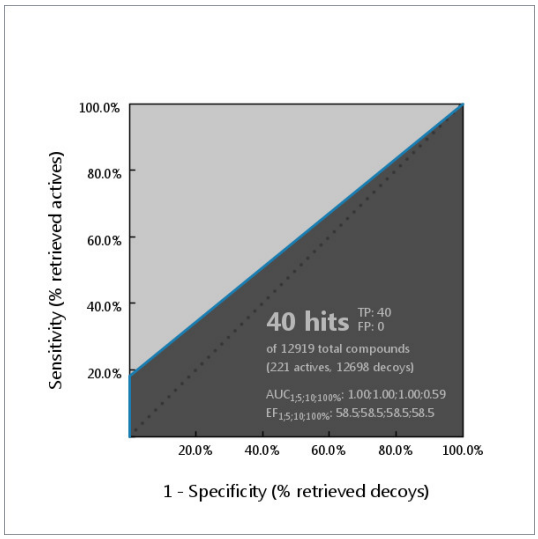
[4] Discngine S.A.S., 79 Avenue Ledru Rollin, 75012 Paris, France; riccardo.martini@discngine.com

* Correspondence: Tihomir.tomasic@ffa.uni-lj.si; Tel.: +386-1-4769-556

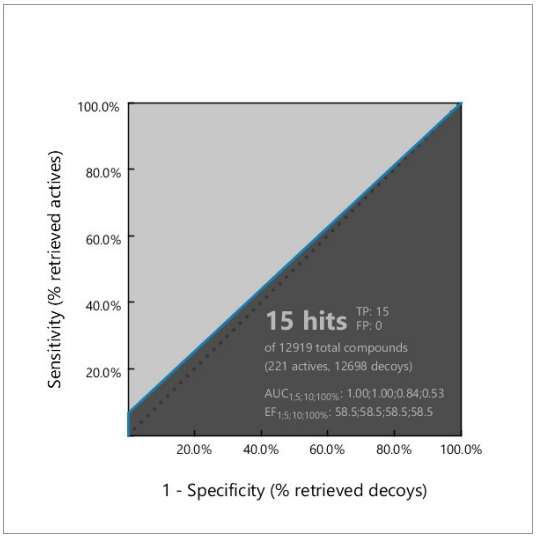
1. ROC plots from the GyrB ligand-based pharmacophore model validation.



(a)



(b)



(c)

Figure S1. Validation phase of **(a) LB-GyrB-Model-5m**; **(b) LB-GyrB-Model-4**; **(c) LB-GyrB-Model-6** ligand-based pharmacophore models. Resulting ROC plot (curve shown in blue) from virtually screening 12919 compounds (221 GyrB actives and 12698 generated decoys) with the ligand-based pharmacophore model. TP = true positives; FP = false positives; AUC = area under the curve; EF = enrichment factor.

2. ROC plots from the Hsp90 ligand-based pharmacophore model validation.

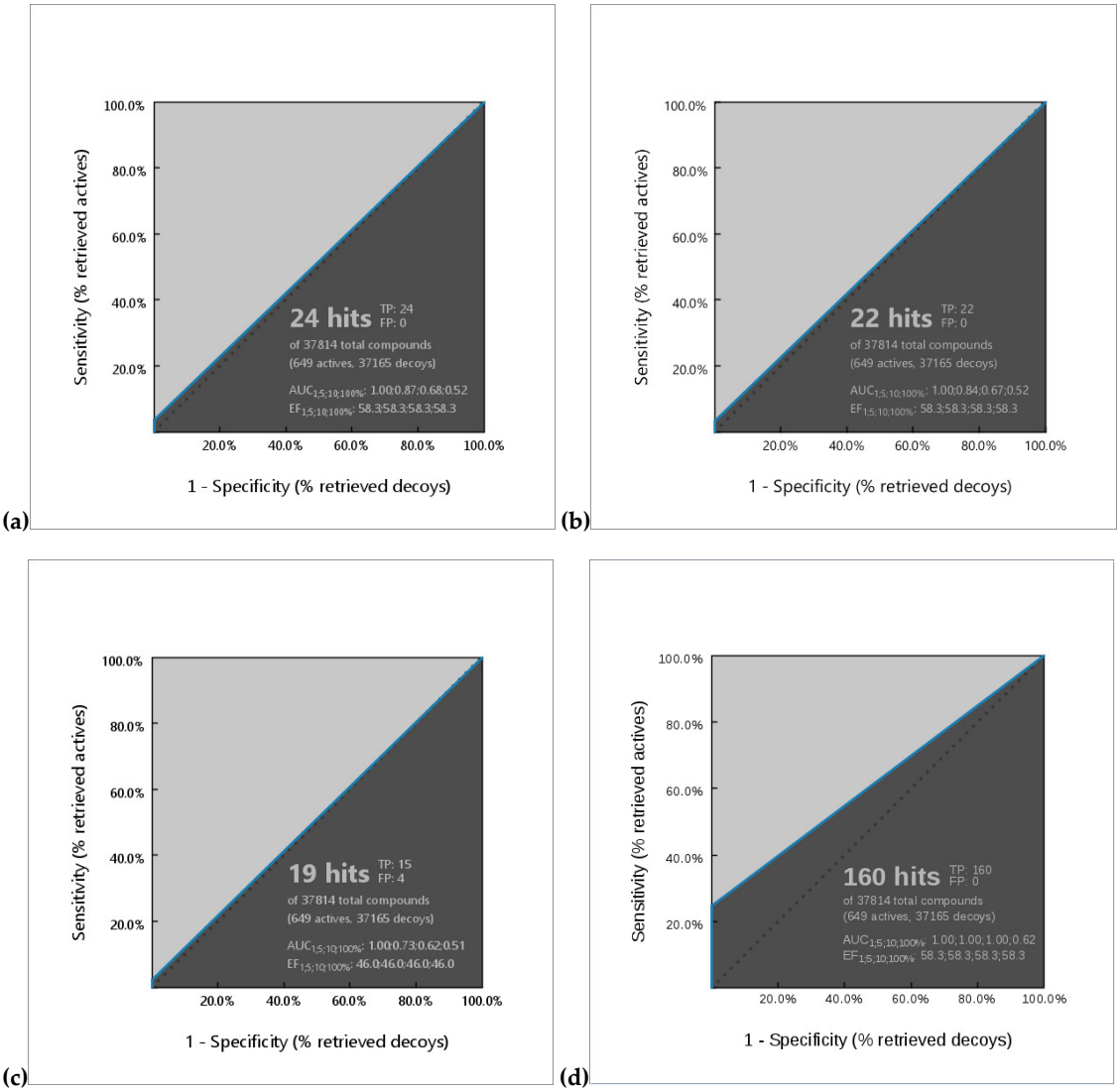


Figure S2. Validation phase of **(a) LB-Hsp90-Model-3**, **(b) LB-Hsp90-Model-4**, **(c) LB-Hsp90-Model-5**, and **(d) LB-Hsp90-Model-6** Hsp90 ligand-based pharmacophore models. Resulting ROC plot (curve shown in blue) from virtually screening 37814 compounds (649 Hsp90 actives and 37165 generated decoys) with the ligand-based pharmacophore model. TP = true positives; FP = false positives; AUC = area under the curve; EF = enrichment factor.

3. ROC plots from the TopoII ligand-based pharmacophore model validation.

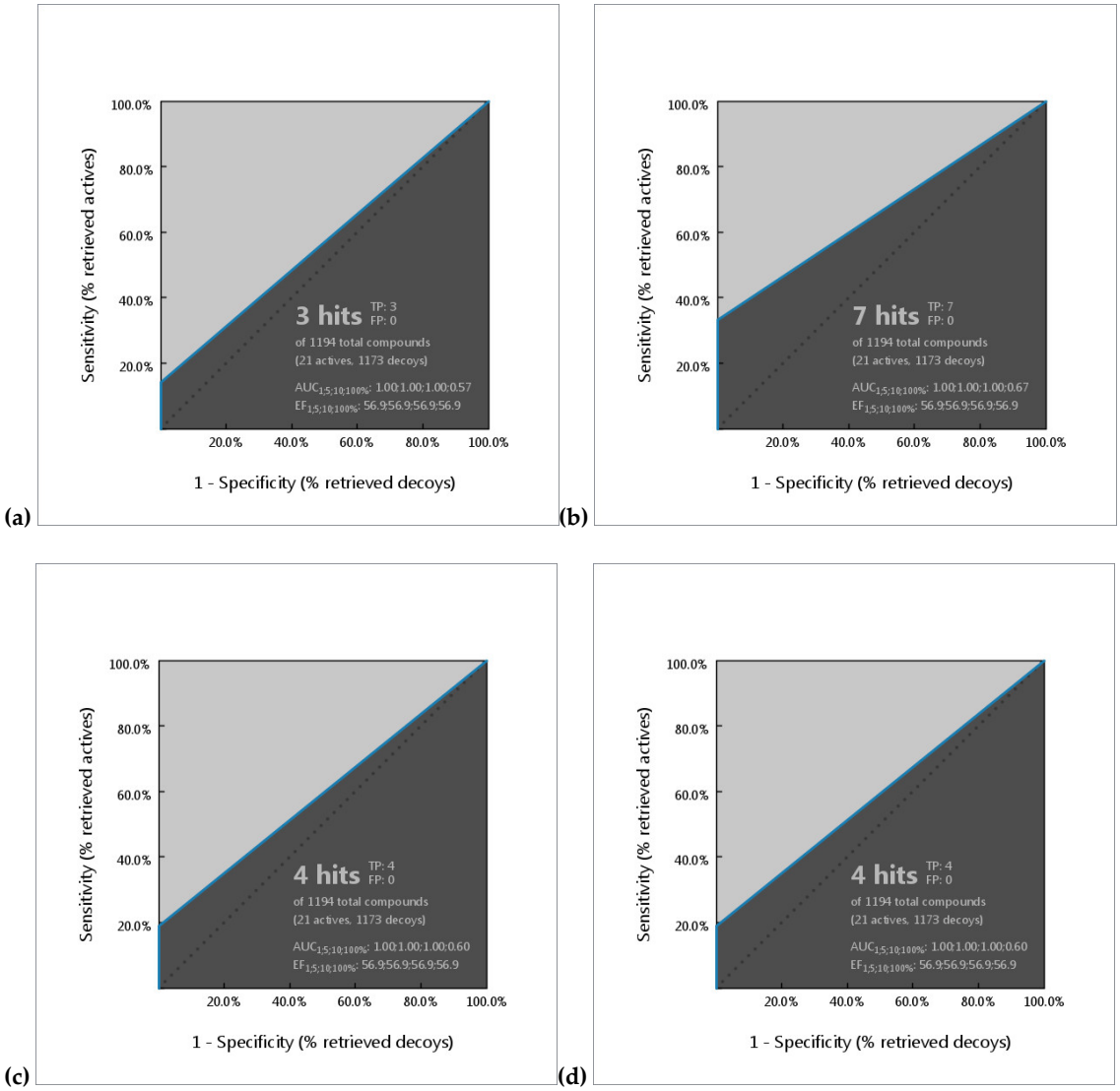


Figure S3. Validation phase of **(a) LB-TopoII-Model-1**, **(b) LB-TopoII-Model-2**, **(c) LB-TopoII-Model-3**, and **(d) LB-TopoII-Model-4** TopoII ligand-based pharmacophore models. Resulting ROC plot (curve shown in blue) from virtually screening 1194 compounds (21 TopoII actives and 1173 generated decoys) with the ligand-based pharmacophore model. TP = true positives; FP = false positives; AUC = area under the curve; EF = enrichment factor.