

### SL-08. Glycomimetic Macrocycles

Carbohydrates are the most abundant natural products. They participate in metabolism and serve as structural building blocks. Carbohydrates are fundamental constituents of every cell surface, where they are involved in vital cellular recognition processes. Glycomimetics are designed to mimic the structure of natural carbohydrates and modulate their disease-related functions. Glycomimetic Macrocycles are an extremely interesting class of glycomimetics that occupy space between small and macro molecules. Glycomimetic Macrocycles are mostly represented by naturally occurring molecules derived from marine microorganisms and bacterial or fungal metabolites. Synthetic glycomimetic macrocyles demonstrate antiangiogenesis activity with potential for anti-cancer therapy [1,2]



### Signature Library 08

Formats	Supplementary Information
80 compounds per plate	SL#8_Glycomacrocycles-1_04-16.sdf
0.1 mg; 1 mg; 2 mg dry film/powder	
0.1 µmol; 1 µmol DMSO solutions	

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References:

1. Nat Rev Drug Discov. 2009 Aug;8(8):661-77. doi: 10.1038/nrd2852.

2. Org Lett. 2013 Feb 1;15(3):432-5. doi: 10.1021/ol3032297.

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### SL-16. Glycomimetic Macrocycles-2

Carbohydrates are fundamental constituents of every cell surface, where they are involved in vital cellular recognition processes. Glycomimetics are designed to mimic the structure of natural carbohydrates and modulate their disease-related function.

Glyco-macrocycles are an extremely interesting class of glycomimetics as they occupy space between small and macro molecules. Glyco-macrocycles are mostly represented by naturally occurring molecules derived from marine microorganisms and bacterial or fungal metabolites. Synthetic glycomacrocyles demonstrate antiangiogenesis activity with potential for anti-cancer therapy [1,2].

ASINEX Glyco-macrocycles-2 library is complementary to Glycomacrocycles-1 Library (ref. SL-08) as it contains more hydrophobic molecules (av. cLogP 2.5) than Glycomacrocycles-1 (av. cLogP -0.5).



#### Signature Library 16

Formats	Supplementary Information
80 compounds per plate	SL#16_Glycomacrocycles-21_05-16.sdf
0.1 mg; 1 mg; 2 mg dry film/powder	
0.1 µmol; 1 µmol DMSO solutions	

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References:

1. Nat Rev Drug Discov. 2009 Aug;8(8):661-77. doi: 10.1038/nrd2852.

2. Org Lett. 2013 Feb 1;15(3):432-5. doi: 10.1021/ol3032297.

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## SL-36. Glycomimetic Macrocycles-3

Glyco-macrocycles are an extremely interesting class of glycomimetics as they occupy space between small and macro molecules. Glyco-macrocycles are mostly represented by naturally occurring molecules derived from marine microorganisms and bacterial or fungal metabolites. Synthetic glycomacrocyles demonstrate antiangiogenesis activity with potential for anticancer therapy [1,2]. ASINEX SL-36 library is complementary to other glycomacrocyclic libraries (ref. SL-08, SL-16). The macrocyclic cores in SL-36 library contain only sp3-carbon atoms attached to the hydroxy-groups which mimic the pharmacophoric pattern of natural monosaccharides. The highly hydrophilic cores have been decorated with more lipophilic side chains to improve the druglike properties of ASINEX compounds.



### Signature Library 36

Formats	Supplementary Information
80 compounds per plate	SL#36_Glycomacrocycles-3.sdf
0.1 mg; 1 mg; 2 mg dry film/powder	
0.1 µmol; 1 µmol DMSO solutions	

#### References:

- 1. Future Med. Chem. (2010) 2(4), 587–599/ doi: 10.4155/FMC.10.8
- 2. Org. Lett. 2013, 15, 432–435 doi: 10.1021/ol3032297

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### SL-39. Glycomacrocycles-4. Glucose

Glycomacrocycles are an extremely interesting class of glycomimetics that occupy space between small and macro molecules. Glycomacrocycles are mostly represented by naturally occurring molecules derived from marine microorganisms and bacterial or fungal metabolites. Synthetic glycomimetic macrocyles demonstrate antiangiogenesis activity with potential for anti-cancer therapy [1,2]

Leveraging our extensive experience in carbohydrate and macrocyclic chemistry, we have created a library of macrocyclic

analogues of glucose. All macrocyclic derivatives retain the characteristic poly-OH element of glucose incorporated into a macrocyclic core. Various side chain substituents have beer attached to the core using an additional nitrogen atom. This strategy has allowed us to both keep the binding epitope of the parent sugar and explore the diversity of peripheral substituents.



### Signature Library 39

Formats	Supplementary Information
80 compounds per plate	SL#39_Glycomacrocycles-4_glucose.sdf
0.1 mg; 1 mg; 2 mg dry film/powder	
0.1 µmol; 1 µmol DMSO solutions	

References:

- 1. 1. Nat Rev Drug Discov. 2009 Aug;8(8):661-77. doi: 10.1038/nrd2852.
- 2. 2. Org Lett. 2013 Feb 1;15(3):432-5. doi: 10.1021/ol3032297.

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# ASINEX SL-100. Glycomimetic Macrocycles for RNA-binding

Carbohydrates are the most abundant natural products. They participate in metabolism and serve as structural building blocks. Carbohydrates are fundamental constituents of every cell surface, where they are involved in vital cellular recognition processes. Glycomimetics are designed to mimic the structure of natural carbohydrates and modulate their disease-related functions.

Glyco-macrocycles are an extremely interesting class of glycomimetics that occupy space between small and macro

molecules. Glyco-macrocycles are mostly represented by naturally occurring molecules derived from marine microorganisms and bacterial or fungal metabolites [1-2]. Synthetic glycomimetic macrocyles represent an interesting chemical class for identification of RNA-binding ligands, due to their favorable properties rendering effective RNA-small molecule interaction [3].



### Signature Library 100

Formats	Supplementary Information
80 compounds per plate	SL#100_GlycoMacro_for_RNA_Binding.sdf
0.1 mg; 1 mg; 2 mg dry film/powder	
0.1 μmol; 1 μmol DMSO solutions	

#### References:

- 1. 1. Nat Rev Drug Discov. 2009 Aug;8(8):661-77. doi: 10.1038/nrd2852.
- 2. 2. Org Lett. 2013 Feb 1;15(3):432-5. doi: 10.1021/ol3032297.
- 3. Future Med Chem. 2010 Jan;2(1):93-119. doi: 10.4155/fmc.09.149.

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