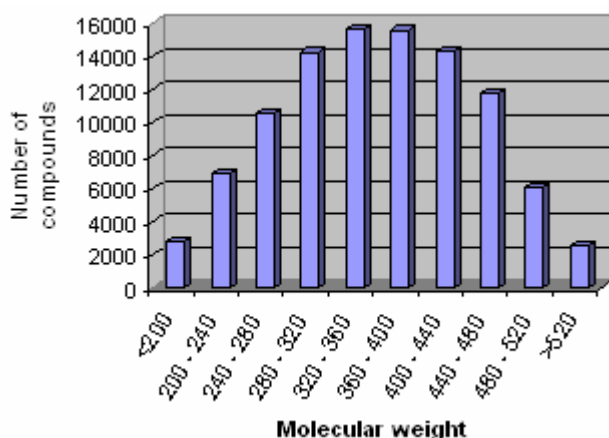


The Diversity Library Characteristics

Hybrigenics Services Diversity Library is composed of 100,000 compounds (HBX-100) selected from commercial sources by our chemists:

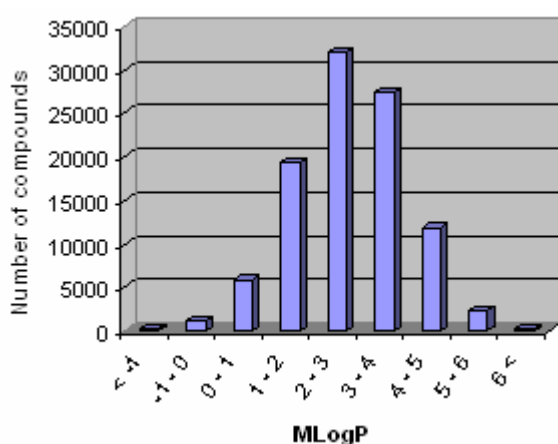
- > **Generalist library.**
- > **Known promiscuous structures were discarded.**
- > **Non stable compound structures (over time) were discarded.**
- > **Every year around 20% of the library is replaced by novel compounds.**

> Lead & Drug Likeness



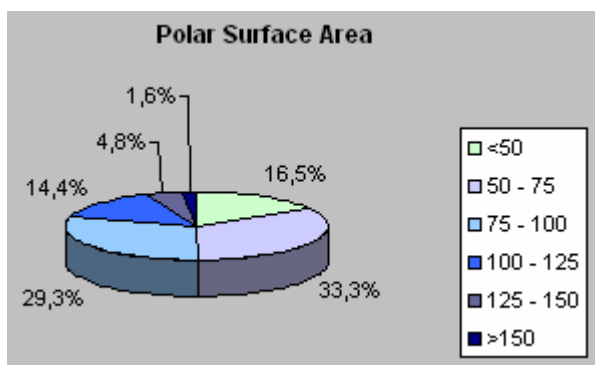
> Molecular Weight

The average molecular weight is 326 g/mol.



> LogP

Absorption also depends on the hydrophobicity of a molecule. To increase the chances of being readily absorbed, the cLogP (or MLogP) of a molecule should not exceed a value of 5 (or 4.15).



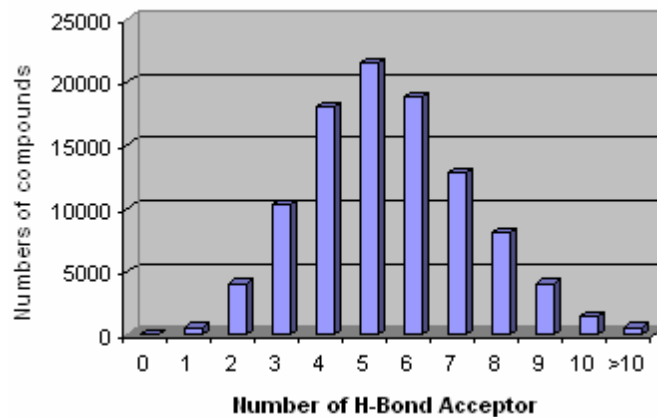
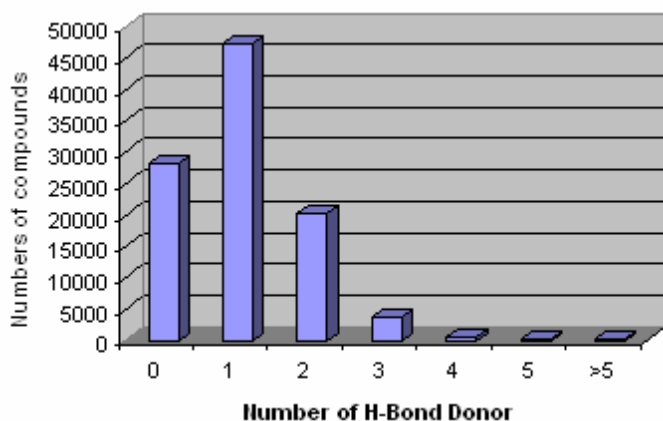
> Ratio hydrophobicity / hydrophilicity & Polar Surface Area

The ratio hydrophobicity / hydrophilicity can be grasped by looking at the polar surface area. A polar surface area value below 140 Å² is considered to be good for membrane permeation.

> Hydrogen Bonds & Absorption

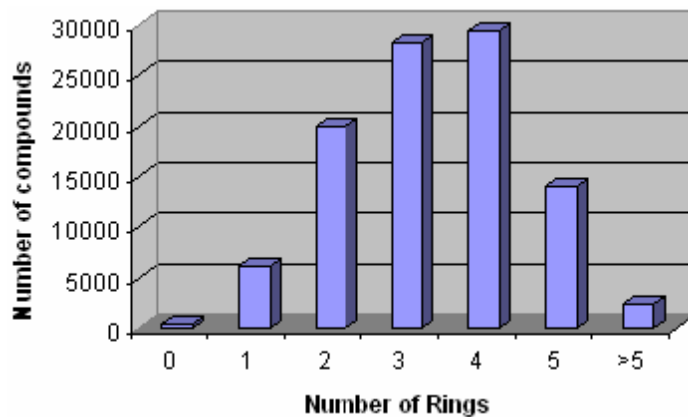
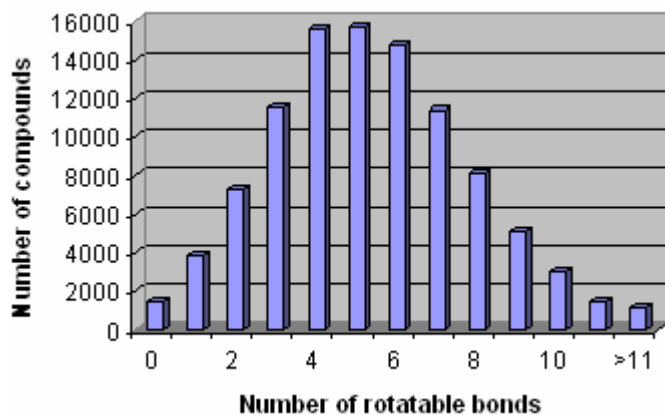
Absorption depends on the possibility for a molecule to make hydrogen bonds.

Good absorption is observed when H-Bond Donor is less than 5 and H-Bond Acceptor is less than 10.



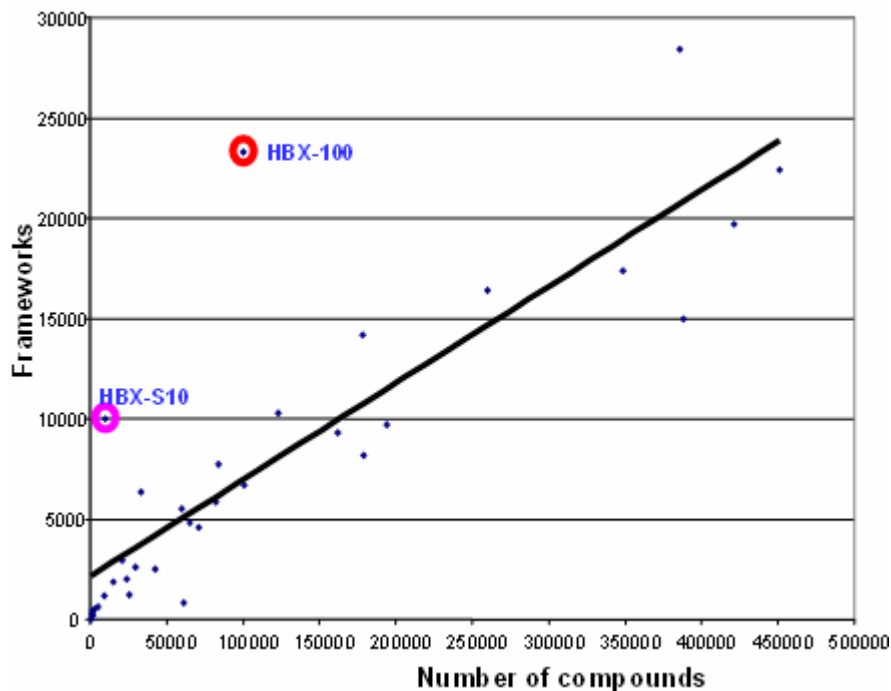
> Molecular Flexibility

Small molecules with a low molecular flexibility are usually preferred: when binding to a protein, the loss of entropy is lower than that of flexible molecules. Molecules with a number of rotational bonds inferior to 10 are considered suitable.



> Frameworks analysis

Relation between number of frameworks and number of compounds for Hybrigenics compounds compared to commercial libraries



> High-Throughput Screening (HTS)

Combine our expertise on assay development with our chemical libraries to start your hit finding discovery.

Goal of HTS: find druggable hits to start your drug discovery

- › Managing thousand hits is costly.
- › Usually, hit rate is around 0.01% to 0.1%, with 100,000 compounds you can expect 10 to 100 hits.

Do not forget quality is better than quantity!

Hybrigenics Services also propose to screen a representative subset of 9,920 unique frameworks (HBX-S10).