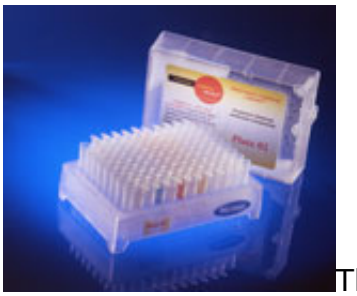
SUPPORTING INFORMATION

The Action of the Hexokinase Inhibitor 2-deoxy-D-glucose on *Cryptosporidium parvum* and the Discovery of Activities against the Parasite Hexokinase from Marketed Drugs by Rana Eltahan, Fengguang Guo, Haili Zhang & Guan Zhu

Supplemental material 1. Information sheet on the 2012 collection of the Prestwick Chemical Library. The 2012 collection contained 1200 small molecules that were 100% being marketed drugs (existing drugs) (vs. current collection of 1280 small molecules).

Fig. S1. Allosteric kinetics of CpHK in the presence of the four compounds. Ebselen and alexidine•2HCL acted as noncompetitive inhibitor of CpHK, while the action of thimerosal and hexachlorophene on CpHK fit with the mixed model of inhibition.

PRESTWICK CHEMICAL LIBRARY®



The Prestwick Chemical Library® contains 1200 small molecules, 100% being marketed drugs, thus it presents the greatest possible degree of "drug-likeliness". The active compounds were selected for their high chemical and pharmacological diversity as well as for their known bioavailability and safety in humans. The Prestwick Chemical Library ® was designed to reduce the risk of "low quality" hits, reduce the cost of the initial screening, and accelerate lead discovery.

What's The Ideal Use Of The Library ?

The strategy we recommend is the "SOSA Approach" (C.G. Wermuth, J. Med. Chem. 2004, 47, 1303-1314). It consists of submitting to the target only a limited number of highly diverse drug molecules for which bioavailability and toxicity studies have already been performed and which have proven usefulness in humans. This initial screening will provide hits that will then be used as starting points for a drug optimization program which will rely on medicinal chemistry expertise. It can be noticed that, if the initial hit has sufficient affinity for the target, it could be immediately tested in patients.

How Provided ?

The Prestwick Chemical Library® comes in two different presentations, either in DMSO solution and therefore ready for screening or in powder form. In the first one, compounds are supplied **at precise 5 or 10 mM** in DMSO and at various volumes between 200µL to 1 mL. In the second packaging, compounds come as dry powder and are supplied in vials, each one containing 10 - 100 mg of substance.

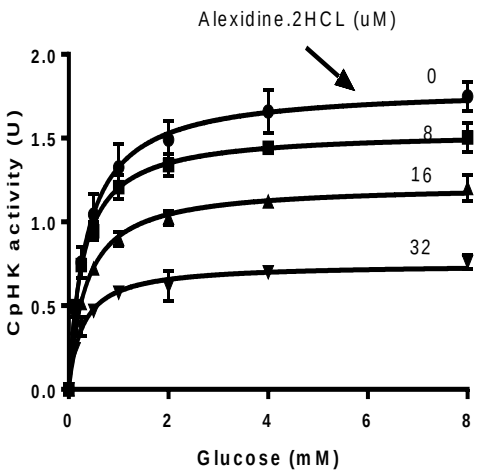
A Database Ready For Use

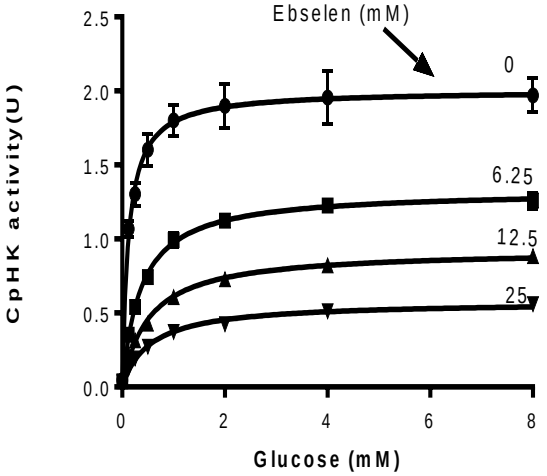
The Prestwick Chemical Library® is provided with a standard data file (SDF) containing more than 50 fields in a hierarchical structure that can be individually customized (some data are pre-registered). A database in DB as well as in XLS format is offered as well. Therefore, each library is supplied with a CD-ROM containing structures, chemical names and smiles of the compounds of the library, as well as useful physicochemical and biological data, literature references and precautions.

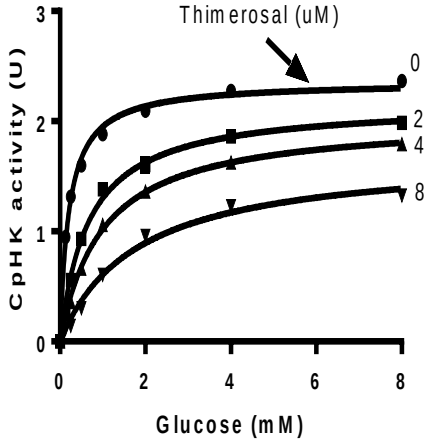
Additional Amounts Of Substances

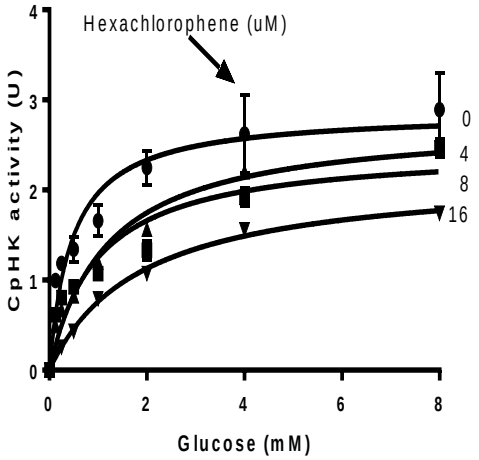
For all the active substances of the Prestwick Chemical Library®, additional amounts up to 100mg can be provided at cost.

The Library is sold with "no strings attached" (i.e. no royalties or milestones are requested).


Alexidine.2HCL (uM)
0
8
16
32
CpHK activity (U)
Glucose (mM)


Ebselen (mM)
0
6.25
12.5
25
CpHK activity(U)
Glucose (mM)


Thimerosal (uM)
0
2
4
8
CpHK activity (U)
Glucose (mM)


Hexachlorophene (uM)
0
4
8
16
CpHK activity (U)
Glucose (mM)