



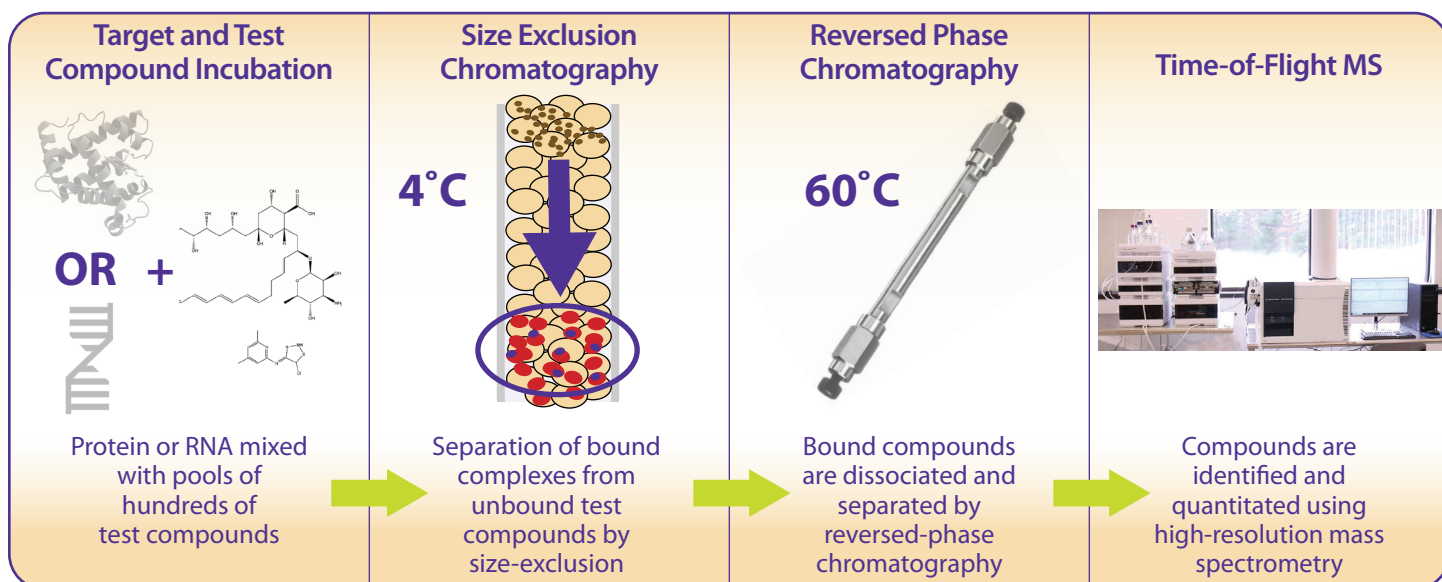
# Affinity Selection Mass Spectrometry (ASMS)

Targeting Proteins & RNA with Small Molecule Drug Candidates

PureHoney Technologies' high throughput Affinity Selection Mass Spectrometry (ASMS) screening services are routinely used to identify and characterize small molecule drug candidates binding traditionally challenging macromolecule targets such as RNA & proteins.

## Lead Identification:

The target - any type or size of protein, protein complex or RNA - is incubated with a mixture of hundreds of test compounds in physiologically relevant buffer and any necessary cofactors, salts, ions, and detergents. Target and any bound test compounds are removed from unbound compounds via size exclusion chromatography and the bound complexes are subjected to RP-HPLC/Time-of-Flight mass spectrometry for identification and quantitation.



The ASMS platform is highly versatile, allowing for affinity assessment against a range of traditionally intractable targets including proteins, protein complexes and mRNA

## Advantages of PureHoney ASMS CRO services:

- ▶ High throughput: 150K test compound in pools of 400 can be screened in 36 hours
- ▶ Low protein usage: Primary screen of 150K test compounds requires ~1 mg of protein

# ASMS Screening Campaign Funnel

## Primary Screen of Multiplexed Library

Any library of pooled compounds can be screened  
Primary hit list generated

## Hit Confirmation

In singleton or in small pools (1-5 compounds)

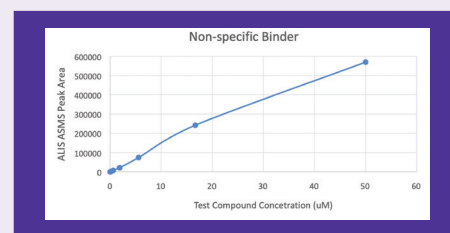
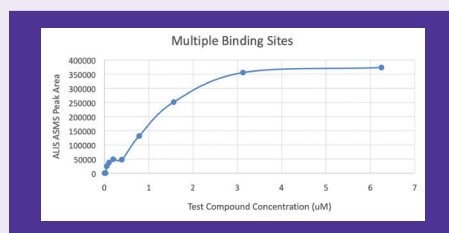
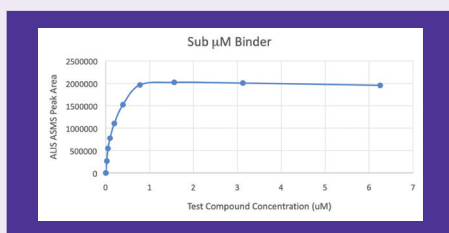
## K<sub>d</sub> Determination (Dose-Response)

Singletons

## Screening Report

**Lead Characterization/Binding Affinity Determination:**  
Dilution series of confirmed screening hits are used to generate binding curves to calculate and compare binding affinity.

### Example K<sub>d</sub> Curves:



## About us:

Specialists in enabling intractable assays, PureHoney Technologies provides a competitive edge in the search for new lead candidates.

- ▶ We offer assay development, HTS screening, secondary screening, and in-life sample services. Once a target is selected, we can develop and optimize proprietary native detection screening assays; support large scale HTS primary screens; perform follow-up retests, IC<sub>50</sub> determinations, binding affinity measurements, and specificity screening, and even help with PK/PD analysis.
- ▶ With 50 years combined experience, our scientists have screened tens of millions of test compounds and drugs for clients across pharma, biopharma, biotech, gene therapy, and toxicology. We have supported clients taking targets from assay design, through lead discovery, into drug development and to the clinic.

CRO Services • Assay Development • Early Compound Screening  
Rare Disease Research • Affinity Selection • Bioanalysis

**Contact us today!**  
**+1 (978) 461-4760**  
**info@purehoneytech.com**



PureHoney Technologies  
3 Federal Street, Suite 300  
Billerica, MA 01821