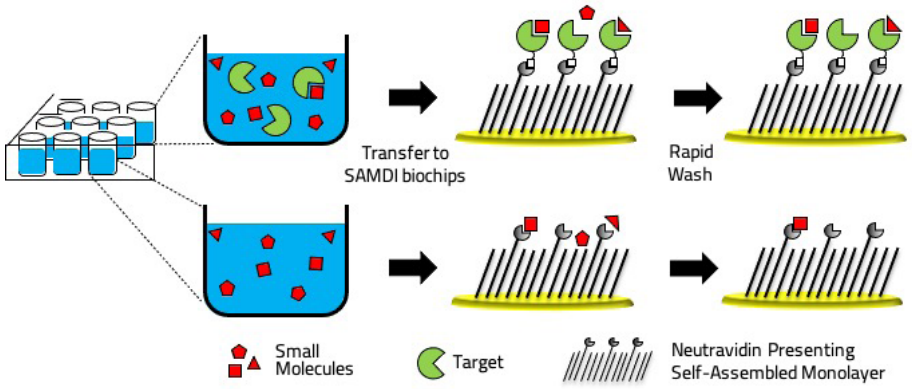
SAMDI ASMS: High-Throughput Screening for PROTAC and Molecular Glues

Targeted protein degradation (TPD) is a promising therapeutic mechanism to engage challenging and previously intractable protein targets. Modalities such as proteolysis targeting chimeras (PROTAC) and molecular glues have attracted significant interest. PROTACs are heterobifunctional small molecules that recruit proteins of interest to a ubiquitin E3 ligase. The proximity leads to ubiquitination of the target protein and subsequent degradation. Alternatively, molecular glues bind to neosubstrates presented when two or more proteins form a complex, including E3 ligases, that can initiate protein degradation. Hit identification strategies often rely on label-based binding assays that are cumbersome, tedious, and unreliable. Affinity selection MS addresses some limitations, yet is often still slow and restrictive, compromising data quality and delaying progress. SAMDI-ASMS uniquely combines surface chemistry and mass spectrometry, offering key benefits for identifying non-covalent binders to virtually any target, and offers significant advantages for hit finding efforts for TPD strategies.



Assay Format

Targets are incubated in a homogenous format in the presence of compounds. The reactions are transferred to monolayers tailored to immobilize the target-small molecule complexes. MALDI-MS is used to identify the mass ID of the bound ligands.

SAMDI ASMS

Multiple targets (protein of interest and E3 ligase or a protein complex) are run in parallel to identify compounds that exhibit selective binding behavior. Compounds with affinities > 40 uM and with off-rates as fast as 5 seconds have been detected.

Advantages of SAMDI Tech:

SAMDI Tech Inc. delivers better, faster assay development, high-throughput screening, and hit-to-lead optimization solutions for early-stage drug discovery. Our highly skilled team of biochemistry experts believes in quality results and uses industry-leading technology to deliver decision-making data fast.

QUALITY DATA

SAMDI Tech generates high quality data for diverse targets and activities enabling:

- Rapid assay development suitable for characterizing small molecule modulators
- Clean and reproducible data with Z-factors that often exceed 0.8

RAPID TURNAROUND

Achieve your milestones faster with a team and technology that:

- Engages in active communication to streamline assay development
- Generates accurate data faster with automated high-throughput screening

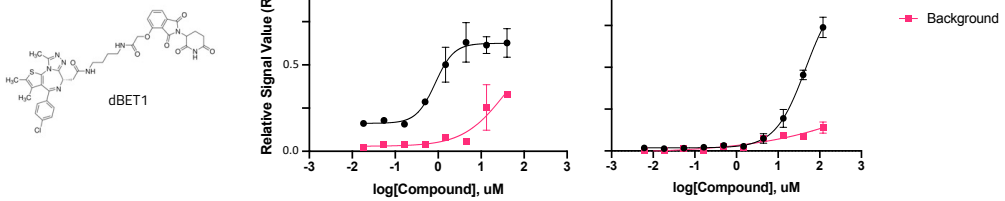
MULTIPLE ASSAY FORMATS

Accelerate your drug discovery projects with orthogonal assay formats, including label-free SAMDI technology, to:

- Validate drug discovery projects
- Gain confidence in your data to make smarter go or no-go decisions

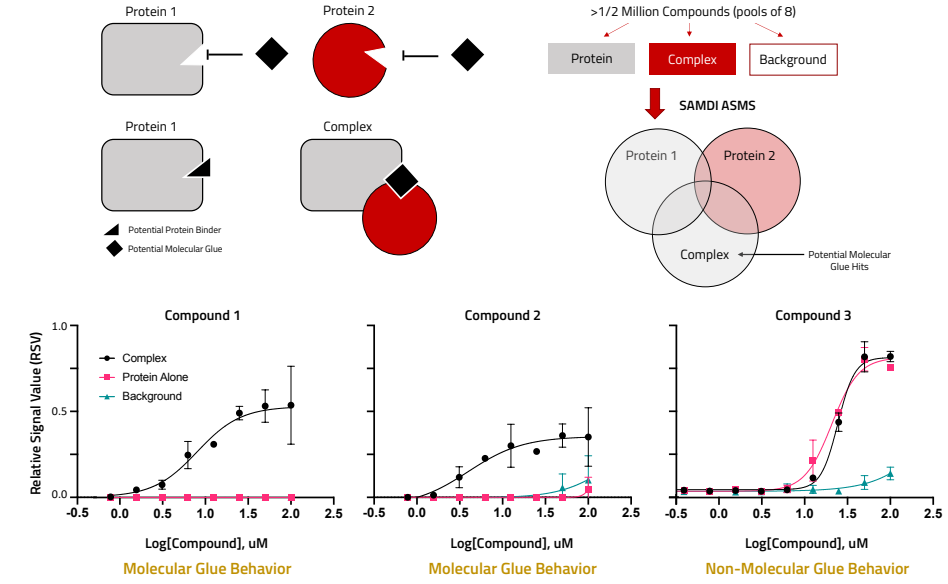
SAMDI ASMS for PROTACs

SAMDI ASMS confirms interactions between known targets (BRD2) and characterized PROTACs (dBET1) along with identifying new PROTAC candidates.



SAMDI ASMS for Molecular Glues

By characterizing compounds with individual proteins and as a complex, SAMDI ASMS reveals novel compounds with molecular glue behavior.



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