

## Disrupting the Role of Biophysics in Drug Discovery: The NanoTemper Dianthus, A Medium Throughput Biophysical Screening Platform

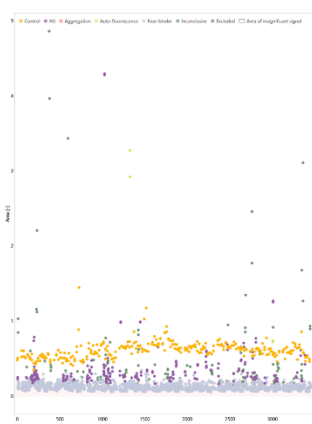
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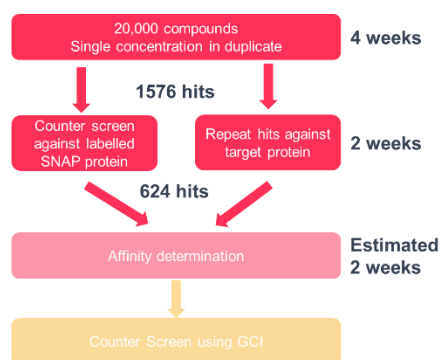
Biophysical assays have revolutionised the drug discovery process. However, many biophysical assays are hampered by limited throughput, which has led to them being most often deployed for hit characterisation and orthogonal screening. Domainex has invested in two disruptive technologies that massively increase the throughput of quantitative, biophysical assays: Grating Coupled Interferometry (Creoptix Wave) and the NanoTemper Dianthus.

The Dianthus is a plate-based, in-solution binding assay, which employs Temperature Related Intensity Changes (TRIC) in fluorescence intensity to quantify ligand binding. The Dianthus is suitable for single concentration screening and the determination of true  $K_D$  values. The sensitivity of the Dianthus pico detector allows for assaying at low nanomolar to high picomolar concentrations of protein, meaning that Dianthus assays can scale in a way many other biophysical approaches cannot.

Here we describe employing the Dianthus in two screening projects: a Medium Throughput Screen of 20,000 compounds and a fragment screen, demonstrating the flexibility and power of this assay platform.



Snapshot of data from 1300 compounds



Domainex screening cascade