

DIANA BIOTECHNOLOGIES

# Kinase Inhibitor Profiling

Service without compromises

# DIANA Inhibitor Profiling: Superior service

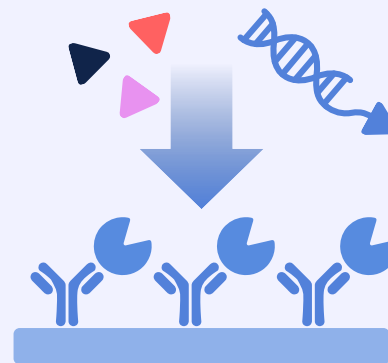
Compound  
Selection



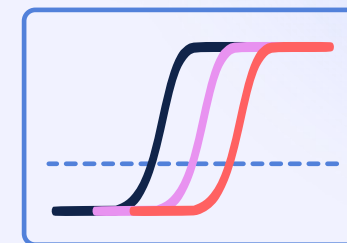
Compound  
Shipment



Compound  
Profiling



Receive  
Results



Pick your compounds and decide whether you want to profile them against one of the **predefined kinase panels** or if you prefer our **custom selection service**.

Send us your compounds and we will analyze them right away.  
If you need any support, **we will be in close contact with you**.

Thanks to proprietary **DIANA Technology** the compound profiling will yield **quantitative inhibition potency data** in form of binding constants ( $K_d$ ).

Turnaround time for your results is **7–14 business days**, varying with order complexity.

We are happy to help you interpret the data whenever needed.

# Introduction of DIANA technology

## Competitive Binding Assay

DIANA assay measures potency of tested compound as function of its competition with **DIANA probe**.

The assay delivers **true binding constants** (Kd) of test compound.

## qPCR Readout

The amount of displaced **DIANA probe** is quantitatively determined by qPCR.

qPCR readout ensures high dynamic range and enables **calculation of Kd from a single measurement**.

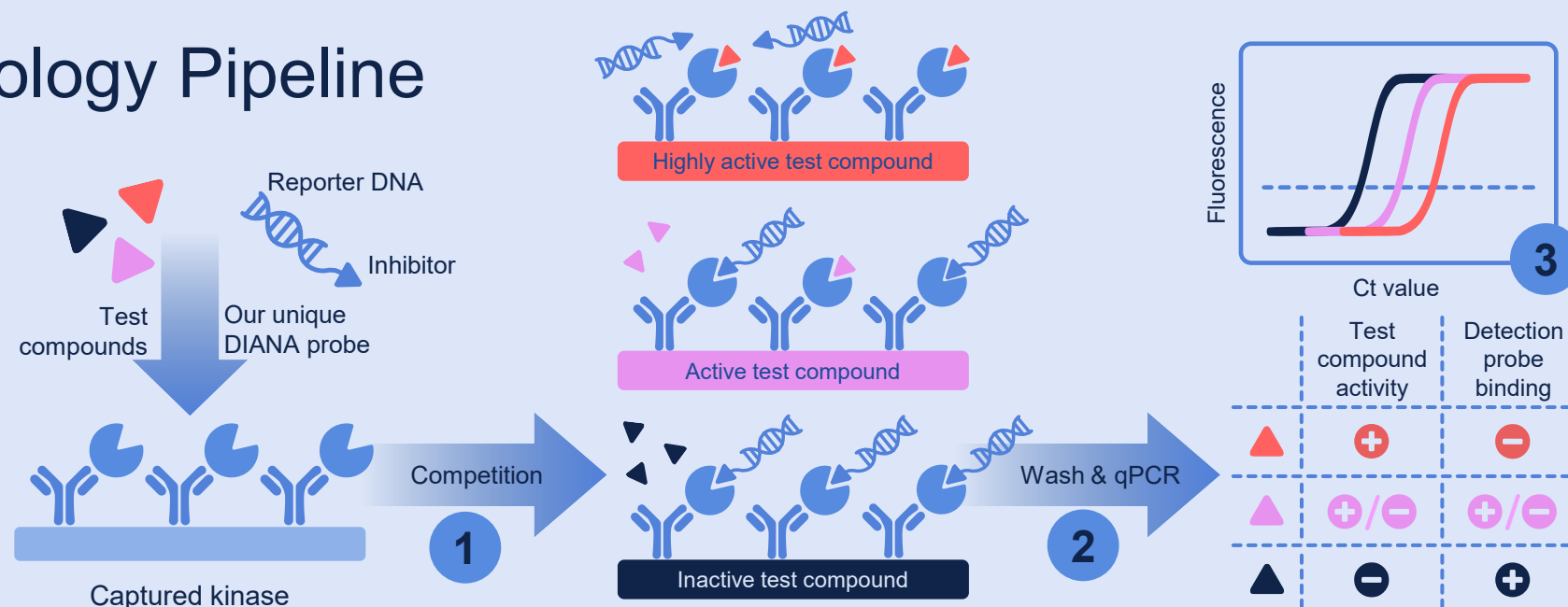
## Superior to KINOMEScan™

Both methods use solid phase assay setup with qPCR readout and yield **highly similar results** for most kinases.

DIANA's more advanced setup enable the use of **recombinant kinases** with posttranslational modifications instead of simpler phage constructs.

## DIANA Technology Pipeline

- 1) Test compound and DIANA probe are incubated in a well with captured kinase where they **compete** for its active site (one compound in one well)
- 2) Unbound fractions of test compound and DIANA probe are **washed out**
- 3) Bound DIANA probe is detected using **qPCR readout**



# UNIQUE features of DIANA ensure BEST in-class service



## Quantitative data

DIANA assay provides true binding constants ( $K_d$ ) from each measurement



## Robustness

Compatibility with 10% DMSO improves precision with poorly soluble compounds



## Ultra-low interferences

Assay format and PCR read-out ensures minimal chance of compound interference



## Internal quality control

Binding potency of known inhibitor determined for each tested kinase in each run



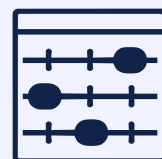
## Get more for your price

Quantitative potency data for the price of relative potency data



## Rapid turnaround time

7 business days for standard and 14 business days for complex services



## Flexible customization

Assemble your own kinase panel for comparable price as our focused panels



## Whole kinome coverage

Our kinase assay portfolio covers all kinase groups within human kinome

Accelerate your projects – get quantitative potency data from the start!

# Our Kinase Profiling Services

	DIANA Kinase Panel	DIANA TK Panel	DIANA CDK Panel	Custom selection
	Panel of kinases covering entire kinome	Panel of tyrosine kinases (TK)	Panel of cyclin-dependent kinases (CDK)	Customize kinase panel for your assay
Number of kinases	170*	68	24	1
Price in EUR per 1 compound	2500	1360	480	25**
Turnaround time***	14 business days	7 business days	7 business days	7 business days
Result	Dissociation constant (Kd)			

\*The stated number is approximate. The precise number of available kinase assays can be found in our kinase assay list at our websites (QR link available in this presentation).

\*\*Minimal Order Quantity for Custom Selection service is 500 EUR.

\*\*\*Counts from the day compounds are delivered to our testing facility.  
For complex orders the turnaround time can be extended to 14/21 business days, respectively.

# DIANA Kinase Panel

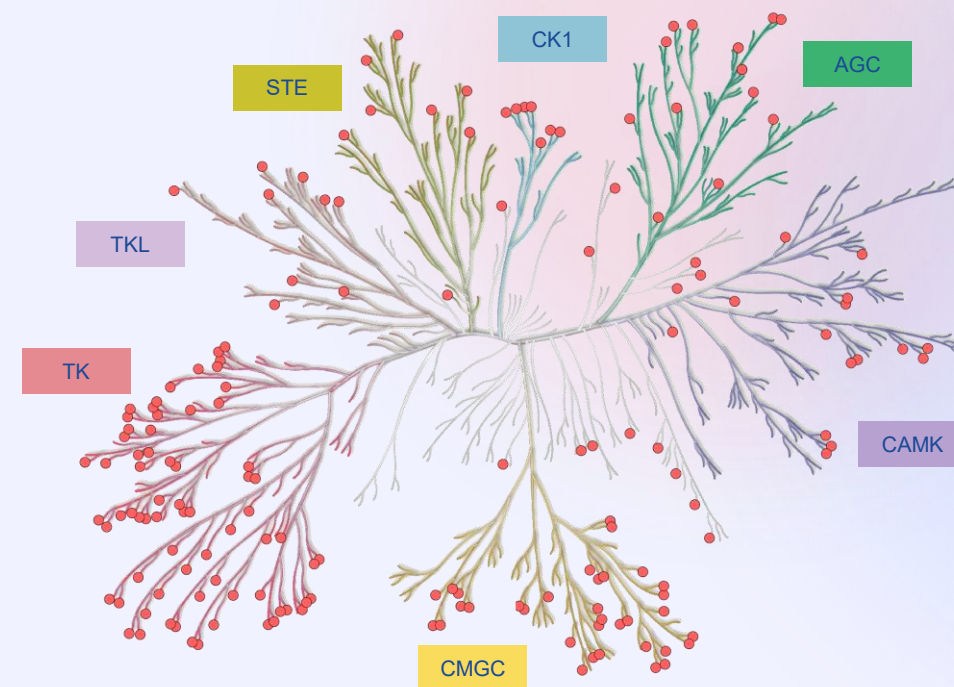
## MORE THAN 170 KINASE ASSAYS

DIANA Kinase Panel representatively covers whole kinome (highlighted as red dots in the kinome tree)

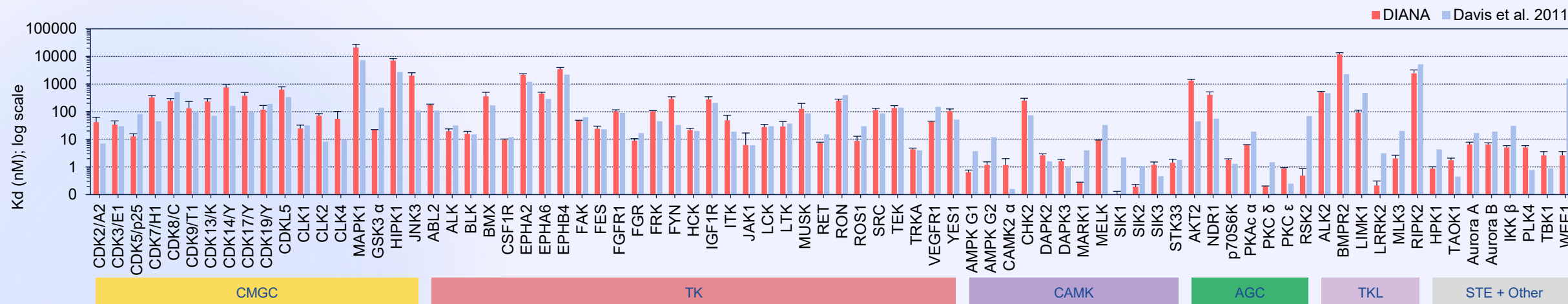
## ONLY PRODUCT ON THE MARKET...

...that provides quantitative potency data on a whole-kinome scale.

Follow this link or scan QR code to get current kinase assays list:



## Staurosporine inhibition profile determined by DIANA Kinase panel compared with reference data on 80 selected kinases





# DIANA CDK Panel

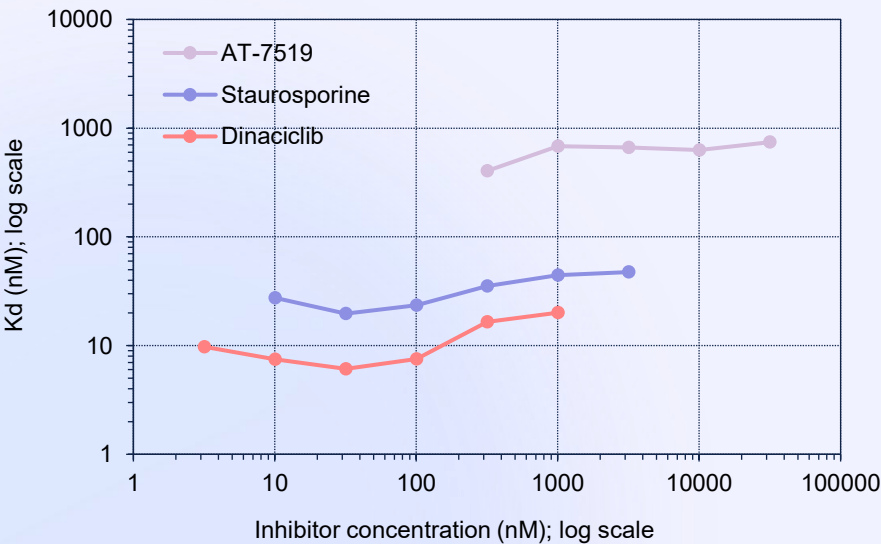
24 CDK/CYCLIN PAIRS AVAILABLE

Cyclin Dependent Kinases (CDKs) are involved in essential cellular processes such as cell cycle and transcription.

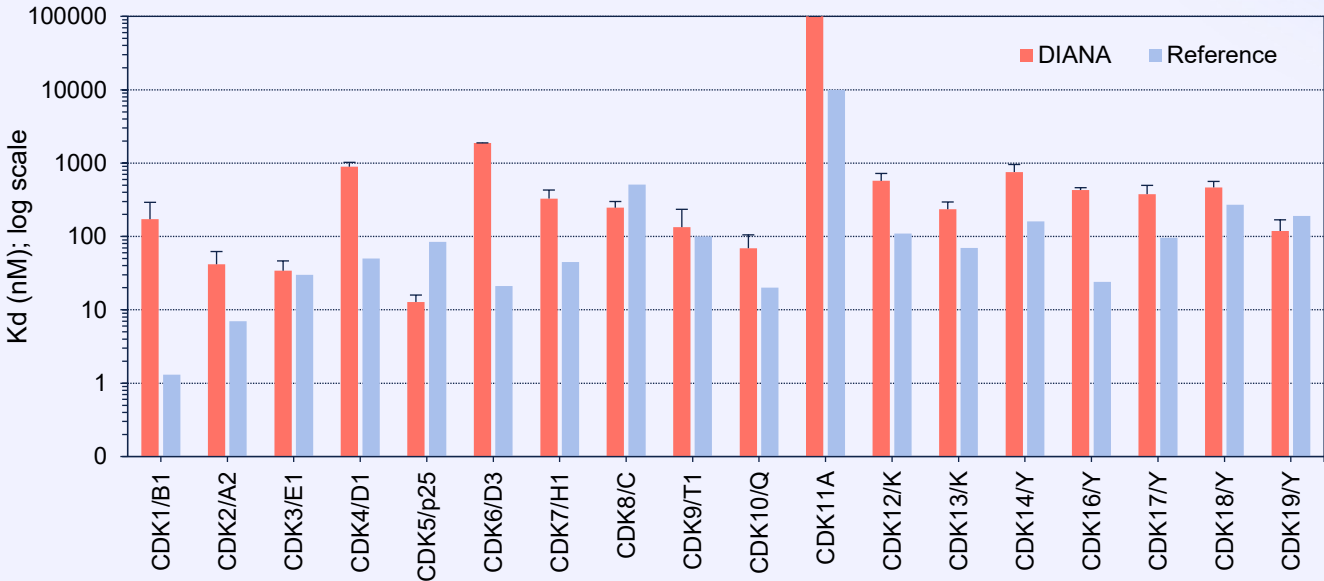
CDKs are regulated by their binding partners, cyclins.

Cell Cycle CDKs/cyclins	CDK1 CycB1	CDK2 CycA2	CDK3 CycE1	CDK4 CycD1	CDK4 CycD2	CDK4 CycD3	CDK6 CycD1	CDK6 CycD3	
Transcriptional CDKs/cyclins	CDK7 CycH1	CDK7 CycH1 MNAT1	CDK8 CycC	CDK9 CycT1	CDK9 CycT2	CDK10 CycQ	CDK11A	CDK12 CycK	CDK13 CycK
Atypical CDKs/cyclins	CDK5 p25	CDK5 p35	CDK14 CycY	CDK16 CycY	CDK17 CycY	CDK18 CycY	CDK19 CycC		

Kd values calculated from 5-6 concentrations of 3 different inhibitors for CDK3/cycE1 are highly consistent



Comparative analysis of inhibition profile of Staurosporine



# DIANA TK Panel

68 TYROSINE KINASES AVAILABLE

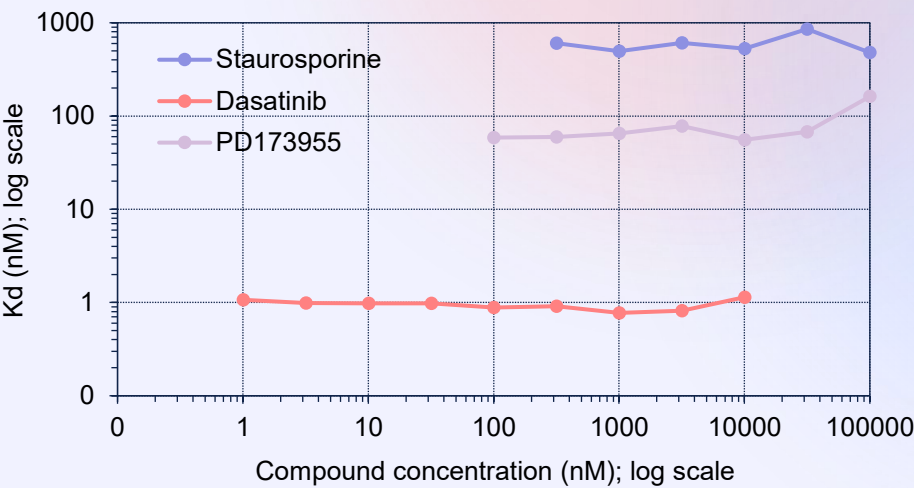
Tyrosine kinases are key drivers of cancer and other diseases with over 20 FDA-approved drugs on the market.

DIANA TK Panel covers over 70% of all human tyrosine kinases.

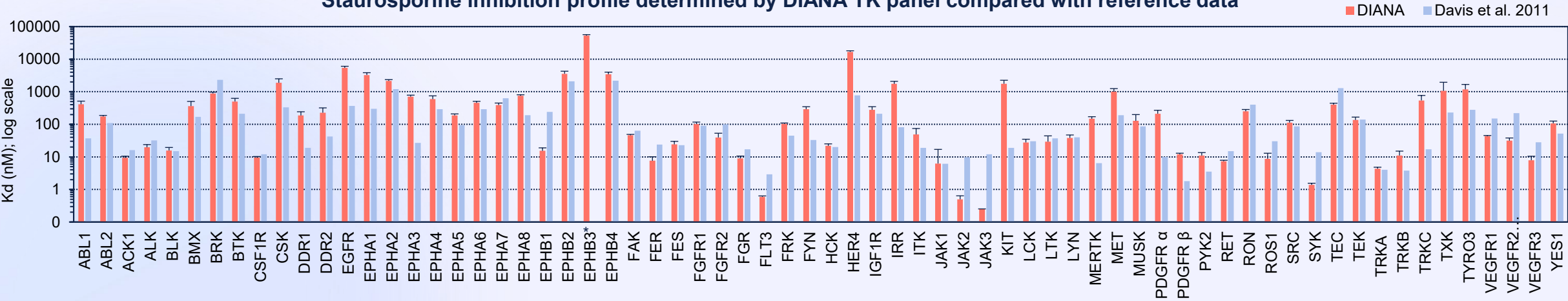
Follow this link or scan QR code to get current TK assays list:



Kd values calculated from 6-9 concentrations of 3 different inhibitors for EPHA4 are highly consistent



Staurosporine inhibition profile determined by DIANA TK panel compared with reference data



\*Inhibition potency of Staurosporine against EPHA3 in Davis et al. study was not determined (i.e. it was higher than 10000nM which is assay detection limit)



# Identify new inhibitors for your kinase with us

High-Throughput Screening (HTS) service is available for all kinases listed in our panels. Custom development for other kinases possible.

## Technical parameters

Excellent Z' factor (commonly  $Z' > 0.8$ );

Close to zero false positivity rate.

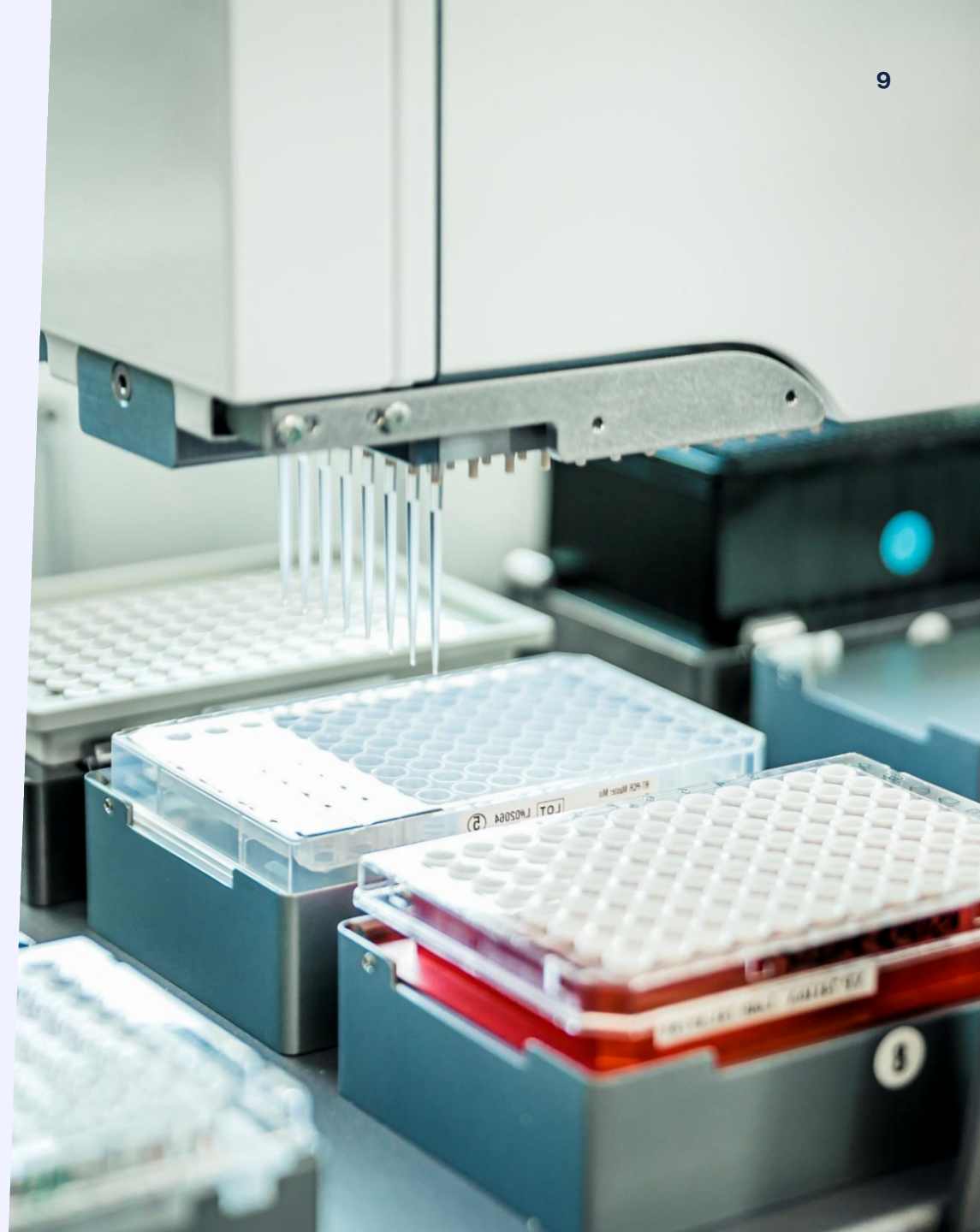
## In-house small compound libraries

1. Drug-like Diversity Set – app. 120 000 compounds (mid MW and logP).
2. Lead-like Diversity Set – app. 10 000 compounds (low MW and logP).
3. FDA library – 2823 compounds.
4. Kinase Inhibitor Library – 1930 compounds.

## Pricing options

Low kinase consumption → highly compatible pricing;

Pricing of the service is quoted individually based on the customer demands.



# Who we are?

**7** YEARS ON  
THE MARKET

We are European biotech company founded in 2018 in Prague as academic spin-off focusing on utilization of DIANA technology in Drug Discovery programs.

**40** MILLION EUR  
IN REVENUE

From 2020 to 2022 we switched towards development of PCR-based diagnostic of COVID-19 with big commercial success: more than 7.5 million PCR tests sold.

**4** SEGMENTS  
AND SERVICES

Currently, we are a diversified biotech company that provides innovative solutions in drug discovery, monoclonal antibody production, life science reagents, and PCR diagnostics.



# Contact us

Contact our global experts  
to discover how we can help  
you realize your vision:



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