

XylanaZ VLA Zymplate®



XylanaZ VLA Zymplate® is a 96-well plate containing xylanase activity sensor made from wheat arabinoxylan. XylanaZ VLA Zymplate® was designed by ZYMOPTIQ® to enable accurate and reproducible measurements of xylanase-containing samples.

Assay principle & compatibility

XylanaZ VLA Zymplate® integrates advanced enzymatic sensors within a 96-well microplate format. XylanaZ VLA Zymplate® is fully compatible with the Zymocube® reader and, coupled with the intuitive Zymosoft® software, it offers automated data acquisition, analysis, and result calculation for high-throughput enzymatic testing and final product validation.

Application

XylanaZ VLA Zymplate® provides a reliable solution for detecting xylanase activity, even at low levels or in complex matrices that may inhibit enzymatic function. It is particularly valuable for determining recovery rate in feed pellets, a key parameter in the animal nutrition industry. Thanks to its high sensitivity, it also enables the detection of residual enzymatic activity in finished industrial products, as well as endogenous activity in raw materials.

Technical specification

Versatility for any conditions

- XylanaZ VLA enables high-throughput xylanase activity testing.
- Designed for robustness and flexibility, XylanaZ VLA performs under a wide range of conditions (pH 3.0–6.0, 4–80°C) and accepts colored or particle-rich samples, without centrifugation or filtration, saving time and simplifying workflows.
- Reusable up to 4 times within a month and stable for 12 months, it is both efficient and economical.

Storage & Expiration date

Store at 10–25°C in its original packaging (blister under vacuum), in a clean, dry place away from direct sunlight. The expiration date is on the label. Use beyond this date may affect performance.

Examples of compatible enzymes

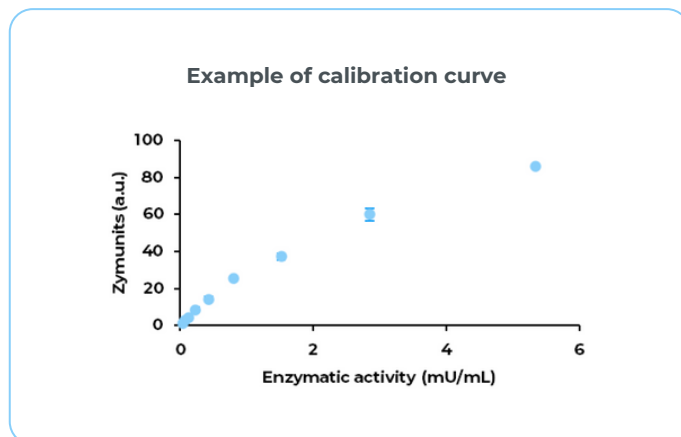
Xylanase, endo-1,4-xylanase, β -D-xylanase, xylanohydrolase.

Metrological performance

Each batch of XylanaZ VLA Zymplate® is rigorously tested for accuracy.

The mid-range activity, defined as the enzyme concentration needed to produce a signal of 50 zu, is experimentally determined using the endo 1,4- β -Xylanase from *Neocallimastix patriciarum* (Megazyme, E-XYLNP) incubated for 45 min at 40°C in sodium-acetate buffer 100 mM containing 1 g/L BSA, pH 4.5 (mid-range activity is typically between 1.2 – 2.4 U/mL).

Performance is evaluated in terms of relative standard deviation (RSD) and relative bias to the theoretical value. Both RSD and bias must be below 15%, ensuring consistent and reliable results.



Zymplate® range

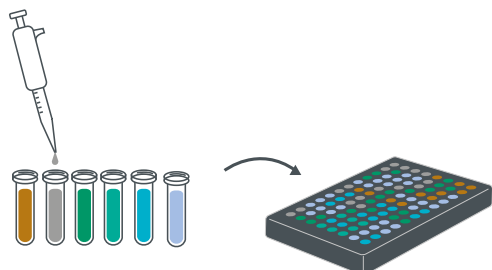
96 measurements in less than 2 hours with a streamlined 4-step protocol

Ready-to-use 96-well plate, with substrate included: Zymplate®.

Use raw samples, non-purified extracts or enzymatic cocktails: no sample preparation is required.

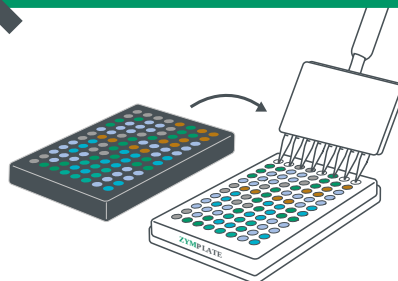
Samples that can be used: liquid, powder, see-through, colored, cloudy, unfiltered.

1 Sample and transfer-plate preparation



- Prepare your samples with enzymes (standard and samples) in buffer.
- Use the buffer or matrix without enzyme as negative control.
- Prepare your transfer plate (96 -well) according to your chosen layout.

2 Reaction start and incubation



4 to 80°C*

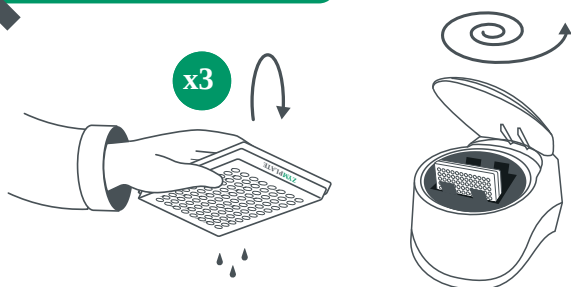


from 30 min

- Take the Zymplate® out of its package.
- Transfer your enzyme solutions to the Zymplate® using a multi-channel pipette.
- Seal the plate and incubate in the desired conditions.

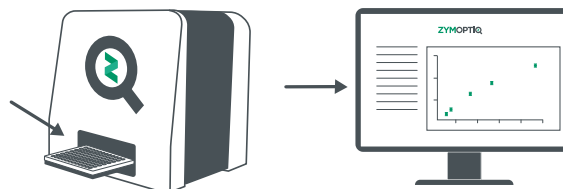
*see sensor specification

3 Reaction end and drying



- Take out the plate, remove the seal and empty it.
- Rinse thoroughly with de-ionized water (thrice).
- Dry by centrifuging the plate upside down.

4 Reading and results



- Scan the plate QR-code and image it with the Zymcube®.
- All 96 positions are read in 15 minutes.
- Get your results!



Recycling-waste disposal At Zymoptiq®, we are committed to sustainability. Zymplate® components are recyclable and we actively support responsible recycling by offering to manage the process for you. Otherwise, please dispose of Zymplate® in appropriate bins following local regulations.

Discover the full range of Zymplate® to maximize efficiency

Explore our complete Zymplate® range:

- **AmylaZ Zymplate®**: Amylase activity
- **GlucanaZ Zymplate®**: B - Glucanase activity
- **PhytaZ Zymplate®**: Phytase activity
- **ProteaZ Zymplate®**: Protease activity
- **XylanaZ HA Zymplate®**: Xylanase (High Activity)
- **XylanaZ VLA Zymplate®**: Xylanase (Very Low Activity)

