

Technical requirements for performing new_diagnostics *Arxula adenivorans* and *Saccharomyces cerevisiae* based tests

Basic Equipment

- Autoclave, Incubator, Microliter centrifuge, Mixer for reaction tubes, Single channel pipettes (volume range from 10 μ l to 5 ml), Consumables (reaction tubes, Falcon tubes, pipette tips, pipette trough etc.), Lab-PC or Laptop

Special Equipment

Multi-channel-pipette (8-channel)

- Multi-channel-pipettes from Eppendorf, Brand, Gilson and other manufactures are suitable. The necessary volume range for performing the test is 10 μ l to 300 μ l. For working with multi-channel-pipettes suitable troughs are essential.

Incubation shaker

- For cultivation of the recombinant yeasts a suitable incubation shaker is mandatory. For this purpose shaker with an orbit from at least 3 mm to 25 mm are recommended. A combination of a small single shaker without incubation function with an additional incubator is possible. Table 1 gives a brief summary about appropriate shaker specifications for the new_diagnostics tests.

Centrifuge for microtiter plates*

- Separation of supernatant from cultivated cells in a deep well plate is accomplished through a centrifuge with a microtiter plate rotor. Centrifuges from e.g. Heraeus, Thermo, Eppendorf and Sigma with the suitable rotors are recommended.

Reader for microtiter plates

- For the measurement of optical densities, a microtiter plate reader (Tecan, BioTek, Eppendorf etc.) with filters for 405 nm, 580 nm** and 630 nm (alternative 600 nm, 620 nm) is essential. For HT-Assays a fluorescence reader is required.

*except HT-Assays and *Saccharomyces cerevisiae* based tests

**only for *Saccharomyces cerevisiae* based tests

Table 1: Recommended shaker speed as a function of shaker orbit for performing new_diagnostics tests.

Orbit	Rotation Speed	Type of Movement	Test
3 mm	750 rpm	orbital (vortex)	A-YES [®] , A-YAS [®] , A-YPS, A-YDS, A-YGS, S-YES ^{MD} , Speed-YES ^{MD} , A-YES ^{HT} , A-YAS ^{HT}
3 mm	900 rpm	orbital	A-YES [®] , A-YAS [®] , A-YPS, A-YDS, A-YGS, S-YES ^{MD} , Speed-YES ^{MD} , A-YES ^{HT} , A-YAS ^{HT}
3 mm	1100 rpm	orbital (planar)	A-YES [®] , A-YAS [®] , A-YPS, A-YDS, A-YGS, S-YES ^{MD} , Speed-YES ^{MD} , A-YES ^{HT} , A-YAS ^{HT}
4,5 mm	750 rpm	orbital (vortex)	A-YES [®] , A-YAS [®] , A-YPS, A-YDS, A-YGS, S-YES ^{MD} , Speed-YES ^{MD} , A-YES ^{HT} , A-YAS ^{HT}
4,5 mm	900 rpm	orbital	A-YES [®] , A-YAS [®] , A-YPS, A-YDS, A-YGS, S-YES ^{MD} , Speed-YES ^{MD} , A-YES ^{HT} , A-YAS ^{HT}
4,5 mm	1200 rpm	orbital (vortex)	μA-YES [®]
15 mm	500 rpm	orbital	A-YES [®] , A-YAS [®] , A-YPS, A-YDS, A-YGS
19 mm	480 rpm	orbital	A-YES [®] , A-YAS [®] , A-YPS, A-YDS, A-YGS
20 mm	450 rpm	orbital	A-YES [®] , A-YAS [®] , A-YPS, A-YDS, A-YGS
25 mm	380 rpm	orbital	A-YES [®] , A-YAS [®] , A-YPS, A-YDS, A-YGS