

4titude plates for Molecular Devices readers

To help you get the best results from your Molecular Devices® plate readers it is essential that you choose the right plate.

4titude® plates are ideal for use with Molecular Devices readers.

Most common applications

Absorbance

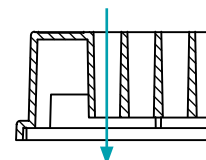
Principle Light must travel through the solution and the base of the plate

Plate specs Clear or clear base plates for optimal light passage

Common assays

- Colorimetric measurements
- Turbidimetric measurements
- UV spectroscopy

Readers Examples: Single mode absorbance readers such as the [EMax® Plus Microplate Reader](#) or multimode readers like the [SpectraMax® M Series Multi-Mode Microplate Readers](#)



Fluorescence

Principle The emitted light is collected
Top or bottom read method

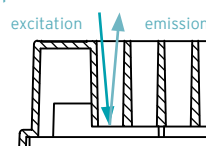
Plate specs Black plates prevent cross-talk and light scattering

Common assays

- Cell Based Assays
- Nucleic Acids
- Protein Quantification
- Enzymatic Assays
- Reporter Gene Assays
- FRET

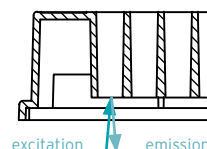
Readers Examples: Monochromators such as the [SpectraMax® i3x Multi-Mode Microplate Reader Detection Platform](#) or filter based systems like the [FilterMax™ F3 and F5 Multi-Mode Microplate Readers](#)

Top read:



Commonly used for non-cell based fluorescence assays.
Uses black, solid bottom plates from our Assay Plate range

Bottom read:



Commonly used for cell based fluorescence assays.
Uses black, clear bottom plates from our Vision Plate range with optional cell culture (TC) treatment

Luminescence

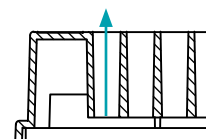
Principle The total amount of light emitted is collected

Plate specs White plates to reflect all the light to the detector

Common assays

- Flash (requires injectors)
- Glow

Readers Examples: Readers with injectors such as the [SpectraMax® L Microplate Reader](#) or multimode readers like the [FlexStation® 3 Multi-Mode Microplate Reader](#)



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Why 4titude ?

Certified production

- 4titude plates are manufactured in Class 7 ISO certified cleanroom facilities
→ Certified high quality plates, free from human DNA, DNase, RNase and endotoxins
- Use of virgin medical grade polymers
→ No chemicals added that could inhibit cell growth
- High quality control standards
→ Each individual 4titude plate is subject to a stringent QC procedure, e.g. visual, dimensional and flatness QC

4titude unique product ranges – Vision Plates™ and UltraVision™ plates

- 4titude optical bases have low auto-fluorescence → Highest screening accuracy
- Optical clarity is consistent across the base ensuring plate-to-plate and well-to-well consistency
→ Reduced variability
- Optical bases are fixed to the plates using high precision laser welding
→ No cytotoxic effects, as seen with adhesive bonding techniques
→ Supreme base flatness, no warping, as seen when using heat welding methods
→ Reduced focus times
→ Improved well-to-well consistency
- UltraVision plates with UV permeable base → Ideally suited for organic compounds, DNA, RNA and protein

Advanced TC treatment for cell culture applications

- 4titude's advanced tissue-culture (TC) treatment method evenly coats each well for optimal cell adhesion properties
→ Highest reproducibility between wells, plates and batches

Assay plates with pyramid flat bottom

- This assay plate features a unique shape of the well bottom with a very flat central part. The pyramid shape allows for a lower dead volume when used in automation. Centrifugation leads to a pellet in the central part of the well rather than a corner.

The complete solution – plates, seals and sealing instruments from 4titude

- 4titude also offer lids and the widest range of adhesive and heat applied plate seals available, such as gas permeable, moisture resistant and optically clear seals for imaging as well as a choice of heat sealing instruments.
To find out more please contact 4titude.
→ Our technical expertise aims to deliver a consumable solution answering all your application requirements

To order, or for further information, please contact 4titude
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4titude plates

Technique	Code	Description
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Absorbance

	4ti-0254	384 well assay plate, clear, non-sterile
	4ti-0255	96 well assay plate, pyramid flat bottom, clear, non-sterile
UV wavelength	4ti-0214	UltraVision Plate 384, black, non-sterile, with UV base
	4ti-0234	UltraVision Plate 96, clear, non-sterile, with UV base



Fluorescence

Top reading	4ti-0264	384 well assay plate, black, solid bottom, non-sterile
	4ti-0263	96 well assay plate, black, solid bottom, non-sterile
	4ti-0265	96 well assay plate, pyramid flat bottom, black, non-sterile
	4ti-0262	24 well assay plate, black, solid bottom, non-sterile



Fluorescence and Absorbance

Bottom reading	4ti-0204	Vision Plate 384, black, clear base, non-sterile
	4ti-0224	Vision Plate 96, black, clear base, non-sterile
	4ti-0244	Vision Plate 24, black, clear base, non-sterile
Bottom reading, sterile	4ti-0203	Vision Plate 384, black, clear base, sterile
	4ti-0223	Vision Plate 96, black, clear base, sterile
	4ti-0243	Vision Plate 24, black, clear base, sterile
Bottom reading, cell based	4ti-0201	Vision Plate 384, black, clear base, sterile, TC treated, lidded
	4ti-0221	Vision Plate 96, black, clear base, sterile, TC treated, lidded
	4ti-0241	Vision Plate 24, black, clear base, sterile, TC treated, lidded



Luminescence

Top reading	4ti-0274	384 well assay plate, white, solid bottom, non-sterile
	4ti-0273	96 well assay plate, white, solid bottom, non-sterile
	4ti-0275	96 well assay plate, pyramid flat bottom, white, non-sterile



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4titude lids and seals

Plate lids

Code	Description	Low profile	Condensation rings	Sterile	Plate compatibility
4ti-0280	Vision Plate 384 Lid	✓			384
4ti-0281	Vision Plate 384 Lid	✓		✓	384
4ti-0282	Vision Plate 96 Lid	✓	✓		96
4ti-0283	Vision Plate 96 Lid	✓	✓	✓	96
4ti-0284	Vision Plate 24 Lid		✓		24
4ti-0286	Vision Plate 24 Lid		✓	✓	24
4ti-0285	Microplate lid ultra-low	✓			all

Adhesive and heat seals

Within both our adhesive seal and heat seal ranges we offer a wide selection of materials to choose from, dependant on your application requirements. See below for a selection; The full range can be found on our website www.4ti.co.uk/seal.

Code	Description	Optically clear*	Peelable	Gas permeable	Moisture barrier	Sterile	DNase/ RNase free	Min. temp °C	Max. temp °C
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Adhesive seals

4ti-0517**	Air-O-Seal		✓	✓	✓		✓	-20	40
4ti-0518**	Double Skin Breathable Film		✓	✓	✓		✓	0	40
4ti-0512	Solvent Resistant Seal		✓		✓		✓	-20	80
4ti-0516/384		✓	✓	✓	✓	✓	✓	-20	80
4ti-0516/96	Gas Permeable Moisture Barrier Seal	✓	✓	✓	✓	✓	✓	-20	80
4ti-0516/24		✓	✓	✓	✓	✓	✓	-20	80
4ti-0566	Pierceable Film		✓	✓			✓	-20	110
4ti-0566/384	Pierceable Film 384		✓	✓			✓	-80	120

Heat seals

4ti-0597**	Gas Permeable Seal Mk 2		✓	✓	✓		✓	-20	80
4ti-0587	DMSO Resistant Seal		✓		✓		✓	-80	40
4ti-0541	Clear seal	✓	✓		✓		✓	-20	80
4ti-0541/SLIT	Clear seal (slit)		✓	✓		✓	✓	-20	80

* Suitable for top reading instruments

** Also available sterilized, please add "/ST" to product code

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