

PCR Accessories

A range of accessories to help improve sample handling, PCR results and to simplify the PCR work-flow



Ergo Stand

For sample set-up we offer the Ergo Stand whose fully adjustable position helps to reduce repetitive strain disorders from pipetting.

Ergo Freeze Blocks

The Ergo Freeze blocks can be used in combination with the Ergo Stand or on their own to keep samples at 4°C during PCR set up.

White Marker Pen

Our white marker pen allows effective labelling of coloured plates to reduce sample errors.

Adhesive Sealing

For improved sealing performance of adhesive seals we offer a number of solutions like our optical film compression pads, FrameStar® plate adapter and adhesive seal roller.

NEW Plate Cutter

We are very proud to present the latest addition to our range: the 4titude® Plate Cutter. Depending on the blades used it can cut plates or seals in strips or partial plate sections.



Ergo Stand

The Ergo Stand is designed for holding microplates and PCR plates during pipetting. Skirted plates sit directly onto the stand, non-skirted, semi-skirted, strips of tubes and single tubes can sit within a plate adapter (4ti-0960/X-F), supplied free with the Ergo Stand.

The height and angle of the Ergo Stand can be adjusted for maximum pipetting comfort, to reduce stress and strain on the upper body and to help prevent repetitive strain disorders (RSI) and work-related upper-body limb disorders (WRULD).

The stand includes eight spaces for 1.5ml or 2.0ml microcentrifuge tubes. This is especially useful when pipetting master mixes into PCR plates.

For colour coding or identification of your work, we offer the Ergo Stands in four colours: red, yellow, green and blue.



Code	Description	Quantity
4ti-0393/B	Ergo Plate Stand, Blue	1 stand
4ti-0393/R	Ergo Plate Stand, Red	1 stand
4ti-0393/G	Ergo Plate Stand, Green	1 stand
4ti-0393/Y	Ergo Plate Stand, Yellow	1 stand
4ti-0960/X-F	Ergo Plate Adapter (for use with non-skirted and semi-skirted PCR plates)	1 adapter

Ergo Freeze Personal Cooling Blocks

Use of the Ergo stand can be combined with the Ergo Freeze cooling blocks (for details see page 51)



White Marker Pen



This marker pen is ideal for labelling our Vision Plates™, FrameStar® Plates and FrameStrips™. The resulting white labelling is clear to see on all colours of plate. Once dry this water resistant ink cannot be removed using aqueous or organic solvents.

- Ideal for labelling coloured microplates
- Impervious to aqueous and organic solvents
- Low odour

Code	Description	Quantity
4ti-0394	White marker pen	1 pen

Ergo Freeze



These SBS-sized cooling blocks, available in pink and yellow, are the perfect PCR accessory. Once frozen for 8 hours at -20°C, they turn from pink to purple or yellow to green and maintain 4°C for approximately 2.5 hours. At 7°C the block returns to its original colour, clearly indicating when it is no longer refrigerating the samples.

- SBS format
- Maintains samples at 4°C for up to 2.5 hours
- Suitable for all PCR plates and tubes
- Compatible with Ergo Stand
- Colour change clearly indicates duration of cooling

Code	Description	Quantity
4ti-0395	Ergo Freeze Personal Cooling Block, pink	1 Ergo Freeze
4ti-0396	Ergo Freeze Personal Cooling Block, yellow	1 Ergo Freeze

Pierce Plate



The Pierce plate is a metal tool with 96 sharp metal spikes aligned central to each well of a 96well plate. The Pierce plate can be easily positioned over a sealed plate and with minimal pressure, will pierce all 96wells simultaneously. Each well may then be easily accessed with a single, 8, 12 or 96 tip manual or automated pipette.

The Pierce plate can puncture most heat and adhesive seals.

- Pierces a complete 96 well plate in one motion
- Easy to use
- Save time

Code	Description	Quantity
4ti-0398	Pierce Plate	1

Optical Film Compression Pad



The Optical Film Compression Pad is a soft silicon foam laminated to a non-stick film. When used in conjunction with adhesive seals, such as the qPCR adhesive seal (4ti-0560), the pad enhances the adhesion between the seal and the PCR plate. In turn, this improves results by reducing the chance of sample evaporation.

- Improved adhesive seal performance
- 96 windows enabling use on qPCR instruments
- Compatible with heated lid cyclers
- Reduces PCR fails
- Reduced well to well variation

Code	Description	Quantity
4ti-0563	Optical film compression pad	5 pads

FrameStar® 384 Plate Adapter



The plate adaptor offers an effective platform for efficient sealing of 384well PCR plates using adhesive seals. Its design ensures that the plate is held perfectly flat so that even pressure can be applied with the Adhesive Seal Roller (4ti-0502).

- Ensures even and consistent application of adhesive seals to 384well plates
- Supports all 384 wells evenly
- For best results, use with our Adhesive Seal Roller

Code	Description	Quantity
4ti-0391	FrameStar® Plate Adapter for adhesive seals	1 Adapter

Also see
ADHESIVE SEALING (PAGES 76-83)

Adhesive Seal Roller



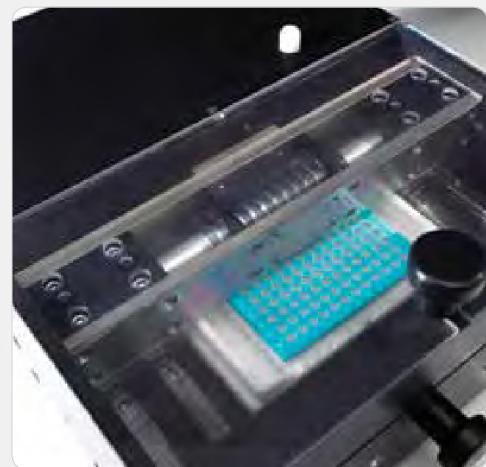
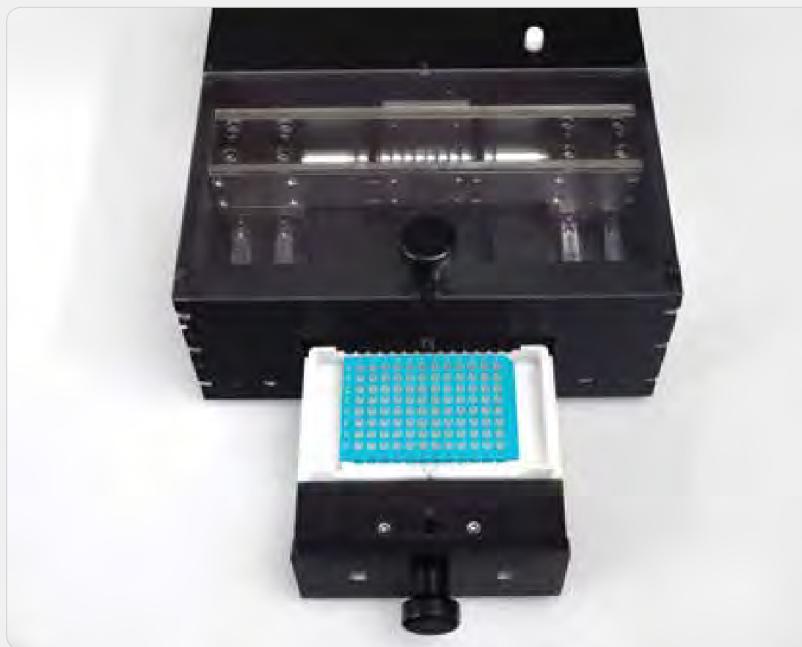
Our Adhesive Seal Roller is of a durable plastic construction with a padded roller. It is recommended for use with all our adhesive seals.

- Complete and secure application of adhesive seals
- Consistent seal application across all wells
- Recommended for use with all 4titude® adhesive seals

Code	Description	Quantity
4ti-0502	Roller for adhesive seals	1 roller

Also see
ADHESIVE SEALING (PAGES 76-83)

Plate Cutter



The semi-automatic Plate Cutter (4ti-3000) can be used with various blade options to create either strips or partial plates from sealed or unsealed Break-A-Way plates. Alternatively, when placed on a different support plate the instrument can be used to cut an adhesive or heat seal on a plate without cutting the plate itself.

The FrameStar® Break-A-Way plate is positioned on the plate carrier and the drawer pushed fully into the instrument. After locking the draw, the cutting action is activated and the air pressure powered cutting blades roll over the plate cutting it into the segments or scoring the plate seal.

Available as 8well strip cutter, a 12well strip version will be launched in 2014.

- Cuts sealed or unsealed Break-A-Way plates
- Ideal for kit manufacturing
- Works with wide range of adhesive and heat seals

Technical specifications

- Dimensions: 210x460x450mm
- Weight: 30kg
- Air pressure 5.5-6.0bar (80-87psi)

Also see

[BREAK-A-WAY \(PAGES 26-29\)](#)

Code	Description	Quantity
4ti-3000	PlateCutter, including air tubing and user manual	1
4ti-3010	Single Strip Cutter Head	1
4ti-3020	Double Strip Cutter Head	1
4ti-3030	Triple Strip Cutter Head	1
4ti-3040	4-Strip Cutter Head	1
4ti-3050	Half-Plate Cutter Head	1

Barcoding

All skirted and semi-skirted plates are available with linear barcodes for identification and traceability. The labels are highly scratch resistant and can withstand cold storage (-80°C) and solvents, such as DMSO. Either single or double barcodes are available off-the-shelf and a variety of customisations are possible.

Standard Barcoded Plates

Our standard barcoded plates are available off-the-shelf, single or doubled barcoded for all our fully-skirted and semi-skirted plates. The barcodes are printed in Code 128 which is compatible with most barcode readers. In addition, human readable format is printed to the right of the label, ensuring samples can always be identified.

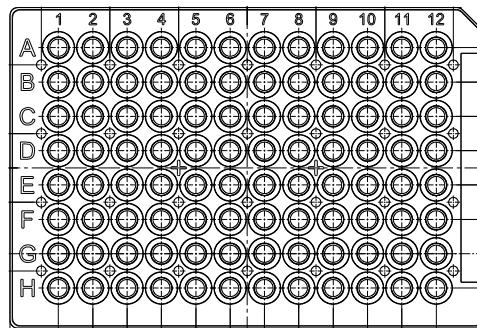
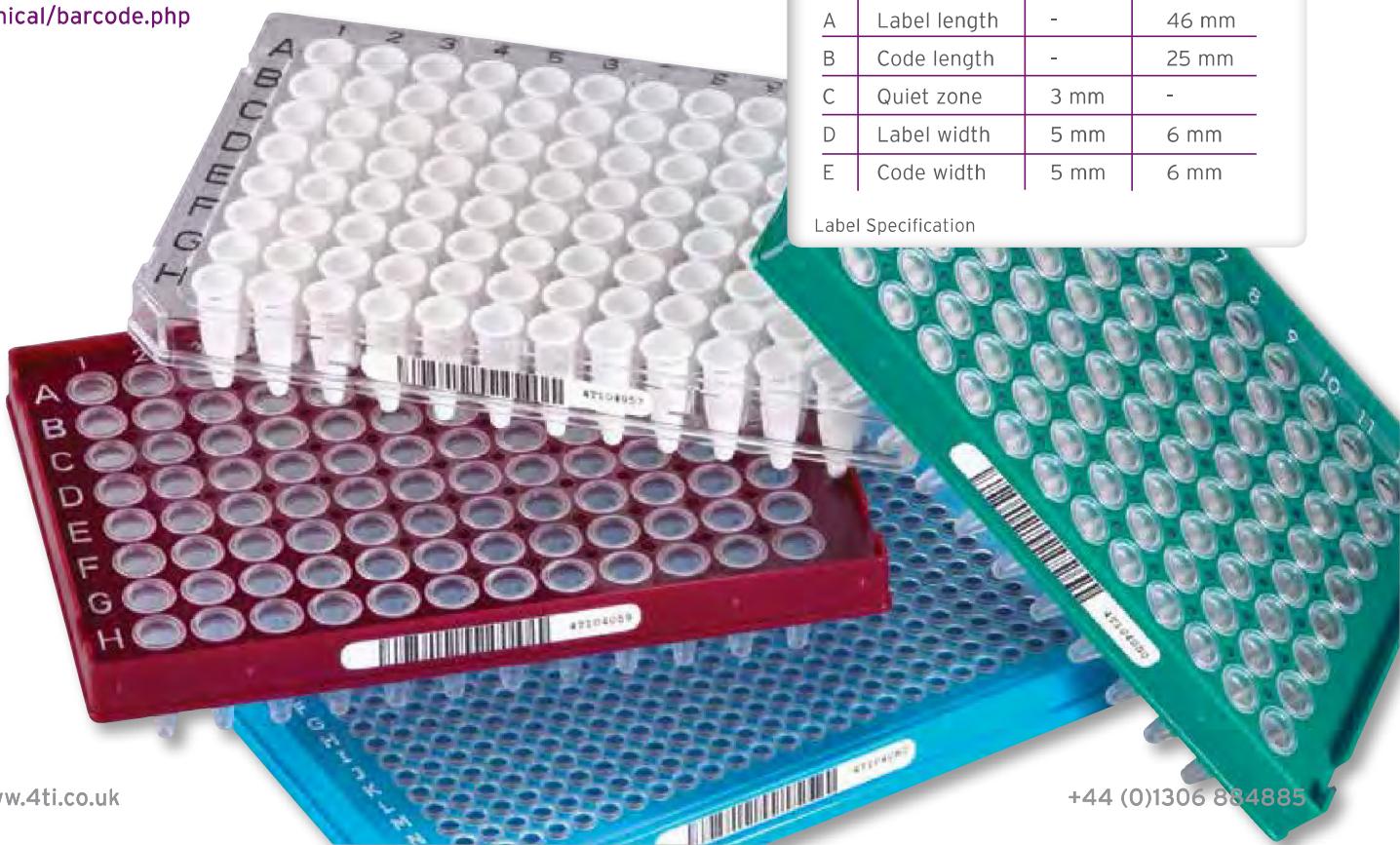
The single barcode is positioned on the south side of the plate and the double barcode is additionally positioned on the east side of the plate.

To order either version, add /SBC or /DBC to the ordering code of the respective plate.

Custom Barcoded Plates

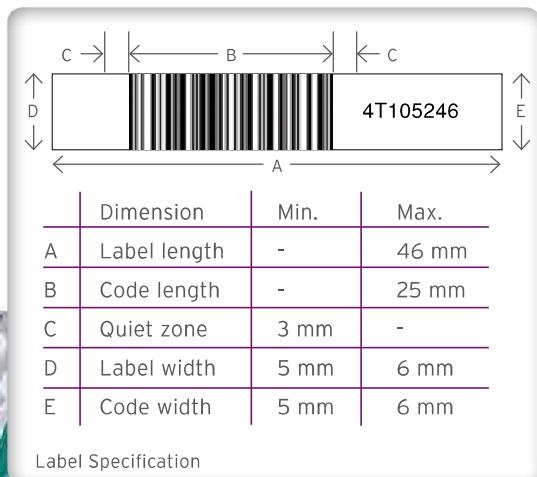
Should you require other barcoded options, not offered from our standard barcoding option, our custom service can apply them in your preferred configuration or format, with a starting sequence of your specification. We can apply a variety of barcode formats to any side of the plate.

Custom barcode orders should be submitted together with a completed custom barcode order form. This can be downloaded from www.4ti.co.uk/technical/barcode.php



Single Barcode

Position of Standard Barcode Labels



Label Specification

2D Barcoding

In addition to our standard and custom linear barcoding we also offer 2D barcoding. 2D barcoding is the use of a datamatrix with a defined number of fields to encode alphanumerical information. The code uses data redundancy so even when codes are partly destroyed the information will be retained.

For our Break-A-Way™ plates and FrameStrips we offer off-the shelf 2D barcodes.

For ordering please refer to the product pages 28 to 29 and 40 to 41.



Barcode Reader

We offer two different barcode scanner.

Single code 2D reader

The smaller 2D barcode Reader (4ti-0787) is compact and scans single 2D barcodes from FrameStrips, Cryotubes or tubes from other manufacturers. Barcodes are instantly read and displayed. The included software is user-friendly and allows for reliable and convenient sample management.



Rack scanner

Our new rack scanner (4ti-4000) scans 2D barcoded tubes in an SBS footprint or cryorack format. Different masks are available for the different consumables. After the scanning the data can be exported in a number of file formats for use with sample management systems



Code	Description
4ti-0787	Single code 2D barcode reader including software
4ti-4000	Single code 2D barcode rack scanner

Additional services

We offer a number of additional services including:

- Sterilization by gamma irradiation
- Double ethylene oxide treatment
- Custom packaging eg, single wrapping
- Products in non-standard colours

Please contact us to inquire about additional charges and minimum order quantities for your specific custom requirements.