

Product Information

CD-1™, Cell Dissociation Sieve - Tissue Grinder Kit, Kit Components, and Available Screens

Catalog Numbers **CD1, S1145, T8279, K3878, S0770, S0895, S1020, S3770, S3895, S4020, and S4145**
Store at Room Temperature

Product Description

The stainless steel cell dissociation sieve is designed to make single cell suspensions from tissue pieces. It has also been used to fragment polyacrylamide gels. The process is very similar to using a mortar and pestle to reduce a solid sample to a powder.

The sieve is a 85 ml cup. The screens are held in place by a retaining ring that is tightened in place by using the screen replacement key. The screens are stainless steel with various mesh sizes and a diameter of 37 mm diameter.

Cell Dissociation Sieve - Tissue Grinder Kit (Catalog Number CD1) - The kit contains one 85 ml cup, 5 each of 40, 50, and 60 mesh screens, 5 screen replacement keys, and 2 glass pestles.

Components available individually

Screen Cup for CD1™ (Catalog Number S1145) -
This is an 85 ml cup with retaining ring.

Tissue grinder pestle for CD1(Catalog Number T8279) -
This is a package of 2 glass pestles.

Screen replacement key for CD1(Catalog Number K3878) - This is a package of 5 keys.

Screens Available for CD1

Catalog Number	Mesh	Wire diameter (mm)	Opening size (µm)
S0770	40	0.254	380
S0895	50	0.229	280
S1020	60	0.191	230
S3770	80	0.140	190
S3895	100	0.114	140
S4020	150	0.066	104
S4145	200	0.053	73.7

Precautions and Disclaimer

These products are for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Procedure

The following procedure outlines the most efficient method for making a single cell suspension from tissue pieces. For sterile applications, the screen and sieve can be autoclaved or otherwise sterilized prior to use.

1. Select the appropriate size screen for the sample being processed and insert it into the opening on the cup. For the finer screens, a larger mesh screen can be used to hold the screen in place.
2. Insert the retaining ring into the threaded area with the slotted side up. Use the ring key to tighten the retaining ring to hold the screen in place. Do not use a wrench or other mechanical advantage to tighten as damage to the cup can result.
3. Place a small, thin piece of tissue sample in the cup and use the pestle to slowly grind the sample through the two screens. For best results, vary the angle and direction of the pestle each time it passes over the sample.
4. The cells are collected and a final rinse with a buffered solution (such as HBSS) is done to obtain all cells from the tissue.
5. The screens and cup can be cleaned by sonication, soaking in a 2% aqueous solution of Sigmaclean® glassware cleaning solution (Catalog Number S4142) heated to 68 °C (will give off a ammonia smell), or soaking in 10% bleach which, on extended use, will eventually oxidize (rust) the screens.

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