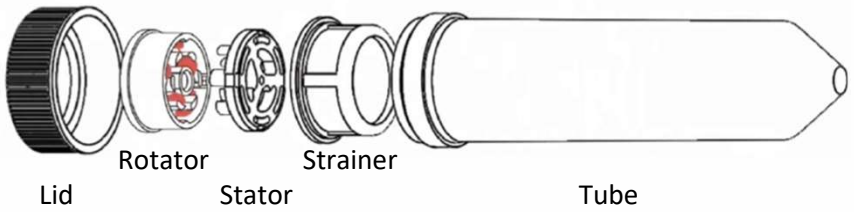
Tissue Dissociation - TIGR Tissue Grinder & Dissociator

The TIGR Tissue Grinder & Dissociator allows fast, mechanical and enzyme free dissociation of various types of tissue. The TIGR tubes are also available in a single pack, sterile version to minimize contaminations. These tubes consist of a modified tube with stator, rotator and cell strainer, available in different sizes. The efficiency has been demonstrated for many types of tissue. The combination of easy handling, minimum cell stress, fast process and maintaining the surface maker profile makes the TIGR the optimal tool for many applications.

TIGRtube

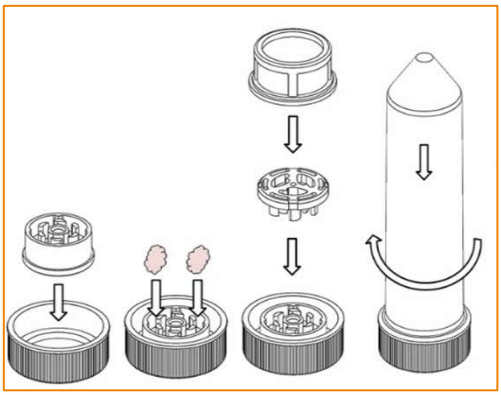


Sample Preparation

1. Unscrew TIGRtube and insert the Rotator into the Lid
2. Add 700-900µl of DMEM (2% FBS) into the Rotator
3. Dissect the tissue into pieces of about 2mm and add about 300mg (50-300mg) to Rotator

   Note for colon tissue: Make sure to cut colon longitudinally (if not open already) before cutting into smaller pieces
4. Add Stator and Strainer (use white strainer with mesh size: 70µm as start) and close the tube tightly adding the centrifugation tube

   Note : Strainer with alternative sizes are available



Dissociation

1. Place the TIGRtube to one of the slots and use one of the standard or a customized protocol (see Quick Guide)
2. After dissociation, centrifuge at 300 *x g* for 8 minutes

   Note: In case there is much cell material left in grinding unit, wash the grinding unit / cell strainer with 5-10ml of DMEM (2% FBS) and centrifuge again at 300*xg* for 8 minutes.

   Option: restart dissociation before centrifugation
3. Aspirate the supernatant and resuspend the cell pellet in 500µl of PBS w/o Ca2+ and Mg2+ supplemented with 2% FBS
4. Control cell quality and quantity using CASY Cell Counter & Analyzer

Standard Protocols

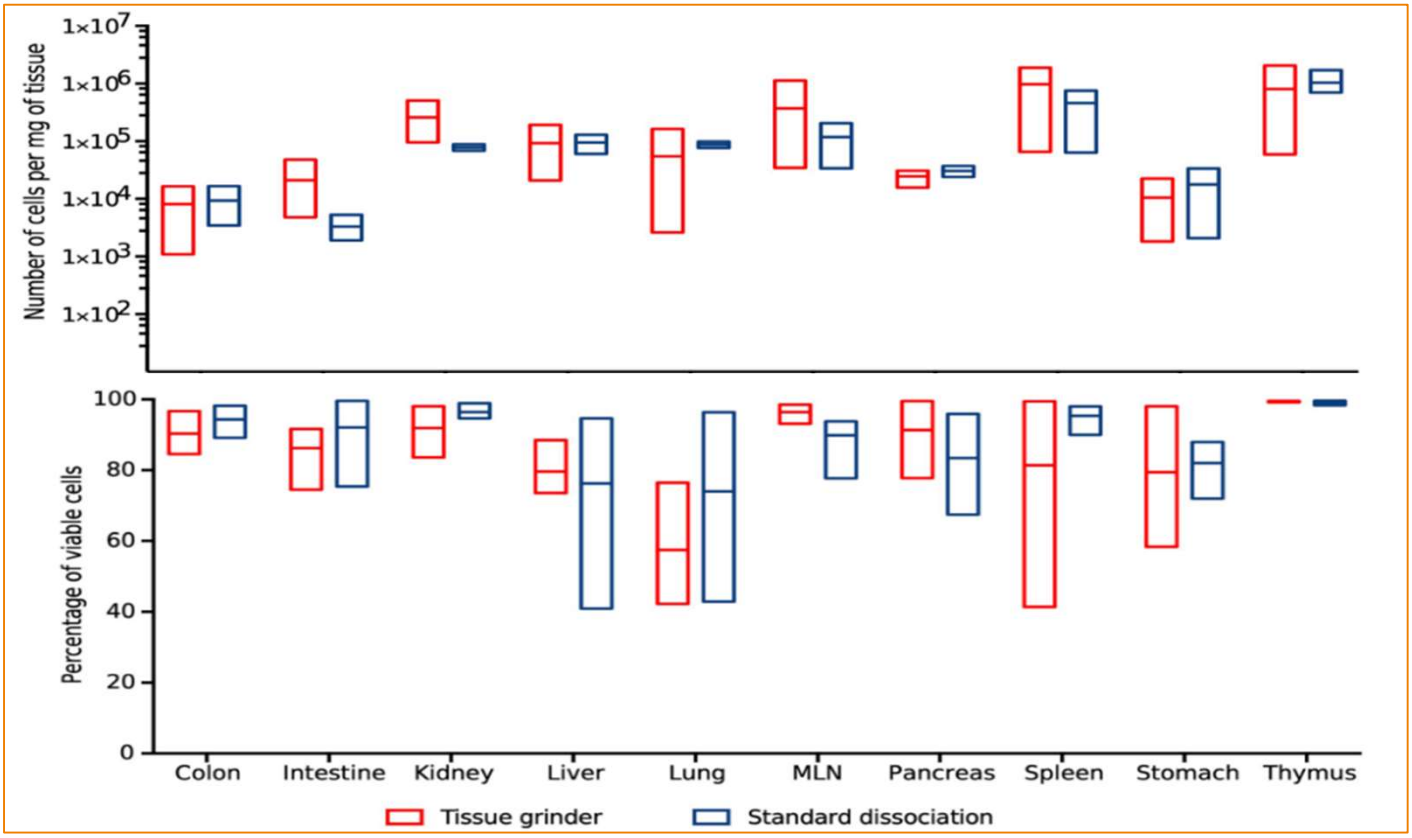
Tissue (protocol)

- Colon (colon)
- Small intestine (intestine)
- Lung (lung standard)
- Liver (liver standard)
- Kidney (medium)
- Pancreas (soft)
- Thymus (thymus soft)
- Mesenteric Lymph Nodes (lymph nodes standard)
- Spleen (thymus soft)
- Stomach (Intestine)
- Human tumor (human tumor)

Optional filtering steps depending on requirements

1. After last step of dissociation, the cell suspension can be filtered using a FACS tube with a cell strainer. Centrifuge at 300g for 8 minutes
2. Aspirate the supernatant and resuspend the cell pellet in 500µl of PBS w/o Ca2+ and Mg2+ supplemented with 2% FBS
3. In case analysis with CASY shows remaining debris, repeat optional steps 1&2
4. Transfer the cell suspension into a 1.5 ml Eppendorf tube.

Guideline for yield and viability



990700	TIGR Tissue Grinder & Dissociator
990701	TIGRtube 40µm
990702	TIGRtube 70µm
990703	TIGRtube 100µm
990704	TIGRtube 40µm, sterile tube
990705	TIGRtube 70µm, sterile tube
990706	TIGRtube 100µm, sterile tube