

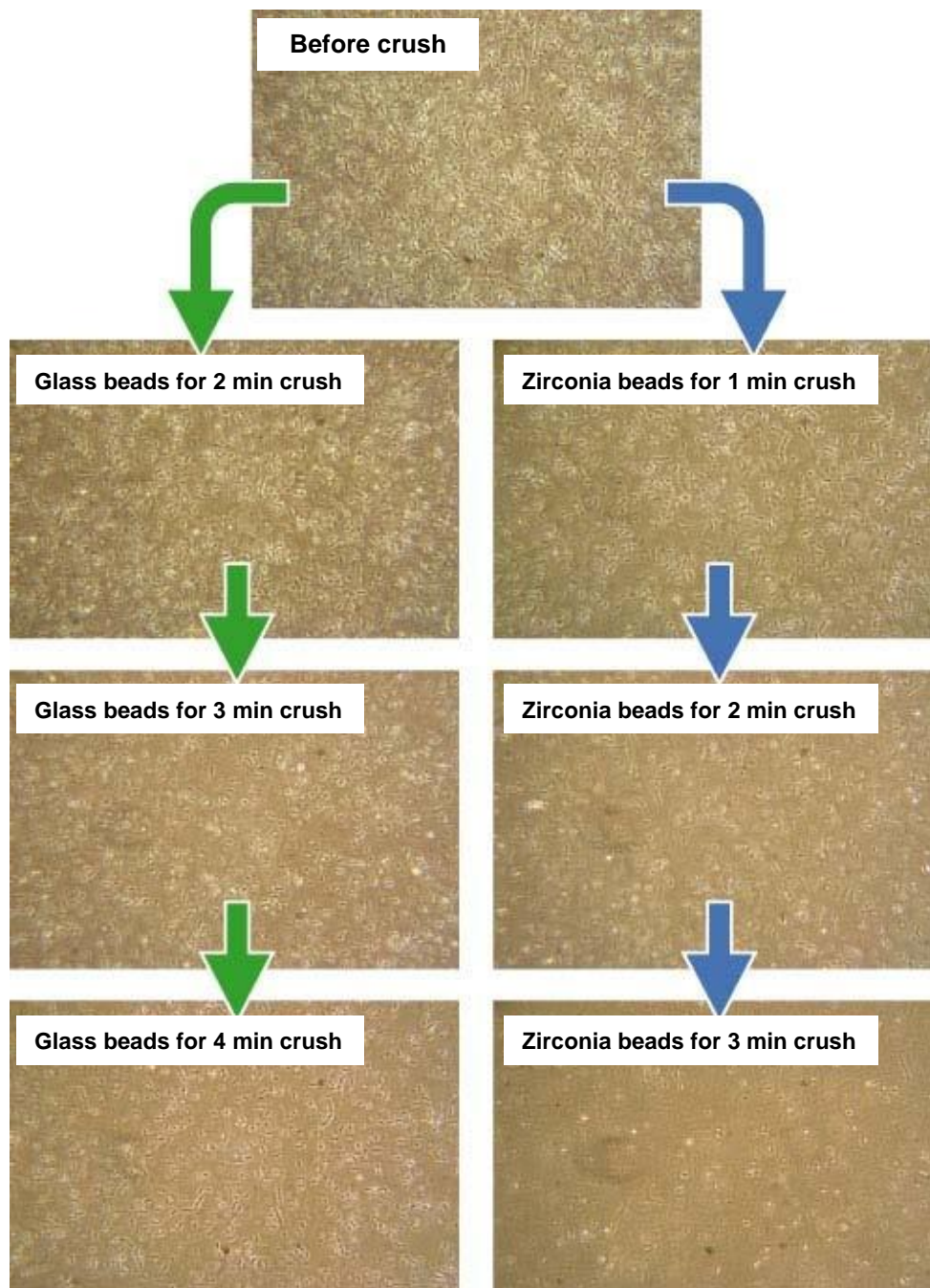
<Beads Crusher μ T-01: Crush Data against *E.coli*>

[Procedure]

- 1) Culture *E.coli* for overnight. and harvest 1 ml of cultured cells by centrifuge.
- 2) Harvest cultured cell by centrifuge and resuspend them with PBS buffer containing 0.1% final conc. of Triton X100.
- 3) Add approx. 1ml of beads.

Here, the example of glass beads (Φ 0.15-0.25mm) and zirconia beads (Φ 0.5mm) are shown.

- 4) Set shaking speed at 4600r/min and operation time for 1 min.
- 5) Check the crushing rate by microscope for every 1 min.



[Result]

Crush rate is about 60 to 90% in 3-4 min.

Zirconia beads are more effective than glass beads.

Zirconia beads with $\sim\Phi$ 0.2mm are expected to be more effective based on the size of cells.

※Cycle operation (operate for \sim 30 sec and sit sample on the ice for several minutes) is recommended since 1 min continuous operation cause heat generation by collision of beads and container.

<Additional Crush Data (μT-01)>

Sample	Before	After Crush	
			<p>■ Skeletal muscles (Chicken)</p> <p>Amount : 100mg</p> <p>Operation Time : 30 sec</p> <p>Bead : Φ5mm SUS bead x1pc</p>
			<p>■ Myocardium (Porcine)</p> <p>Amount : 100mg</p> <p>Operation Time : 30 sec</p> <p>Bead : Φ5mm SUS bead x1pc</p>
			<p>■ Born (Chicken)</p> <p>Amount : 100mg</p> <p>Operation Time : 30 sec</p> <p>Bead : Φ5mm SUS bead x1pc</p>
			<p>■ Lung (Chicken)</p> <p>Amount : 100mg</p> <p>Operation Time : 5 sec</p> <p>Bead : Φ5mm SUS bead x1pc</p>
			<p>■ Gizzard (Chicken)</p> <p>Amount : 50mg</p> <p>Operation Time : 30 sec</p> <p>Bead : Φ5mm SUS bead x1pc</p>
			<p>■ Mushroom (Hen of the Woods)</p> <p>Amount : 100mg</p> <p>Operation Time : 15 sec</p> <p>Bead : Φ5mm SUS bead x1pc</p>
			<p>■ Broccoli</p> <p>Amount : 100mg</p> <p>Operation Time : 60 sec</p> <p>Bead : Φ3mm SUS bead x10pcs</p>