

## Tribo™ MSC Prime Medium (TBS8022)

### Product Overview

Expansion of mesenchymal stem cells (MSCs) in serum-free media such as MSC Medium is a critical step towards clinical application. However, isolation of primary MSCs from human tissues in serum-free media suffers from low efficiency due to a lack of cell adhesion proteins. **MSC Prime** is developed to resolve this deficiency. **MSC Prime** is serum-free (no human or animal serum added) and chemically-defined (all ingredients are either purified or recombinant) for primary MSC isolation:

- 1 Increase plating efficiency of primary MSCs
- 2 Result in more homogeneous and morphologically-desirable MSCs
- 3 Better lot-to-lot consistency than serum or other undefined supplements.

### Package size and storage

**MSC Prime** is a concentrated solution (25 X) and shipped in three package sizes frozen:

	Catalog #	Size (25 X)	Diluted Volume
<b>MSC Prime</b>	TBS8022-01	1 mL	25 mL
	TBS8022-05	5 mL	125 mL
	TBS8022-25	25 mL	625 mL

●**Storage and Shelf life:** **MSC Prime** can be stored at -80°C for 6 months. Diluted MSC Prime can be stored at 2 to 8°C for 2 weeks.

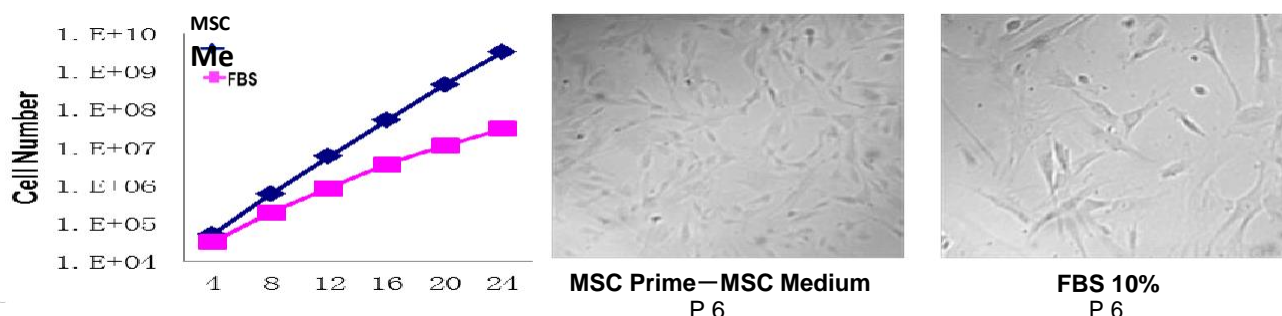
●**Avoid freeze and thaw.**

### Application Instruction

- Prior to use, thaw MSCprime® at 2 to 8°C overnight.
- Add primary cell isolate containing MSCs (e.g., MNC layer of bone marrow aspirate) into 10X volume of MSC Medium (TBS8021), spin cells down at 1500 rpm for 10 min.
- During cell spinning, dilute MSC Prime into complete MSC Medium at a ratio of 1:24.
- Resuspend the cell pellet in the diluted MSC Prime / MSC Medium and transfer into a CellBIND® tissue culture flask. Place the flask in 37°C, 5% CO<sub>2</sub> incubator.
- Change medium to MSC Medium in 2 to 6 days. The optimal time of the medium change to MSC Medium may vary between tissue types. We have successfully isolated MSCs from bone marrow after 2 days and umbilical cord after 6 days in MSC Prime /MSC Medium. The appearance of MSC-like colonies can be used as a guide

### Expected Results:

**MSC Prime:** Isolated homogeneous/smaller MSCs subsequently expanded in **MSC Medium**:



**Fig. 2.** MSCs isolated by **MSC Prime** expand faster in **MSC Medium** with more desirable morphology than in FBS.