

## Technical Data Sheet

12/07/2017

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### Trypsin 0.25% in PBS w/o Calcium w/o Magnesium w/ Phenol Red

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Product code:  
LM-T1703

<b><u>Theoretical pH :</u></b>	7.2 ± 0.3
<b><u>Osmolality :</u></b>	280 mOsm/kg ± 10 %
<b><u>Colour :</u></b>	Light yellow solution (frozen product) Red orange solution (liquid product thawed)
<b><u>Storage conditions :</u></b>	-20°C
<b><u>Shelf life :</u></b>	24 months
<b><u>Sterility tests :</u></b>	<ul style="list-style-type: none"><li>- bacteria in aerobic and anaerobic conditions</li><li>- fungi and yeast</li></ul>
<b><u>Cell growth test :</u></b>	No cell growth test, but activity test with adherent cells
<b><u>Composition :</u></b>	Available on request
<b><u>Recommended use :</u></b>	<ul style="list-style-type: none"><li>- Respect storage conditions of the product</li><li>- Do not use the product after its expiry date</li><li>- Store product in an area protected from light</li></ul>

- Manipulate the product in aseptic conditions (e.g. : under laminar air flow)
  - Wear clothes adapted to the manipulation of the product to avoid contamination (e.g. : gloves, mask, hygiene cap, overall...)
  - In order to preserve all product qualities, it is recommended to thaw out the flask, to aliquote, then to re-freeze the produced flasks rather than to thaw out and re-freeze the flask at each use.
  - It is recommended to use the product immediately after its thaw out.
- The product is intended to be used in vitro, in laboratory only. Do not use it in therapy, human or veterinary applications.

## **Applications :**

Trypsin is a porcine pancreas-derived enzyme that is commonly used for the dissociation and disaggregation of anchorage-dependent mammalian cells and tissues. The concentration of trypsin necessary to dislodge sensitive cells from their substrate depends on the sensibility of cells.

## **Storage / Stability :**

This product does contain phenol red. The product is shipped on dry ice and there could be significant CO<sub>2</sub> buildup in the package. This CO<sub>2</sub> may enter the solution and lower the pH slightly, giving an orange (around pH 6.5) vs. pinkish (around 7.3) color. The solution, if orange (acidic) should still be good to us as is, or sodium hydroxide may be added to adjust the pH.

## **Uses :**

The Trypsin 0.25% in PBS w/o Calcium w/o Magnesium w/ Phenol Red is a ready to use solution.

1. Trypsin can either be thawed in a 37°C water bath or overnight at to 2 to 8°C.
2. Aspirate the spent medium from the culture vessel and discard.
3. Rinse the monolayer with either a small amount of trypsin solution or a calcium and magnesium-free salt solution (as listed below), aspirate, and discard.  
Dulbecco's Phosphate Buffered Saline (DPBS) Hank's Balanced Salt Solution (HBSS)
4. Add enough trypsin solution, prewarmed in a 37°C water bath, to completely cover the cell monolayer.
5. Incubate the flask at 37°C, or at 2 to 8°C for more sensitive cultures (The duration of incubation required to dislodge sensitive cells from their substrate depends on the cellular type, the cellular density, the concentration of the serum in the culture medium, the activity of the trypsin and on the delay since the last subculture. The trypsin causes damages on the cell cultures and the time of exposure must be maintained at the minimum).
6. When the trypsinization process is complete, cells will appear rounded upon microscopic examination and the solution in the flask will appear cloudy. Check the flask often to avoid overexposure which can damage the cells.
7. The trypsin should be neutralized either with serum containing medium or trypsin inhibitor. Gently centrifuge the cell suspension and discard the trypsin-containing supernatant.
8. Resuspend the cell pellet with fresh medium and count or culture as desired.