

TRI REAGENT® APPLICATION FOR CULTURED CELLS GROWN IN MONOLAYER

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The amount of TRI Reagent® (Cat. No. TR 118) required for the isolation of RNA from cells grown in monolayer is based on the area of the culture plate and not on the number of cells in the culture. This is due to the buffering effects of residual cell culture media adhering to the culture plate and the amount of reagent required to sufficiently cover the area of the plate.

We recommend using 1 ml of TRI Reagent per 10 cm² of culture plate area. This can be safely reduced to 0.7 ml per 10 cm², but lower volumes will result in DNA contamination of the RNA sample. When using larger culture plates with a high surface area, TRI Reagent LS® (Cat. No. TS 120) may be used. This more concentrated version of the reagent has been designed for use with liquid samples. In this case, we recommend applying 0.3 - 0.4 ml of TRI Reagent LS per 10 cm² of culture plate area. The smaller volumes of reagent can reduce the cost of isolation per sample. There is no difference in efficiency of isolation between the two versions of TRI Reagent. This table lists the recommended volumes of reagent for some of the more commonly used culture plates.

Culture Dish	Total Area (cm ²)	TRI Reagent Volume (ml) 1 ml / 10 cm ²	TRI Reagent Volume (ml) 0.7 ml / 10 cm ²	TRI Reagent LS Volume (ml) 0.35 ml / 10 cm ²
1 well in 6 well plate	10.0	1.0	0.8*	0.6*
10 cm dish	78.5	7.8	5.5	2.75
T75 flask	75.0	7.5	5.25	2.65
T150 flask	150.0	15.0	10.5	5.25

(* We do not recommend using less than 0.8 ml of TRI Reagent and 0.6 ml of TRI Reagent LS. The inefficient removal of the small volume of aqueous phase will reduce the RNA yield.)

Cite this protocol by referring to Molecular Research Center, Inc. Technical Bulletin 1.

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