



## **AdenoBooster™ Solution (cat# AD1012)**

### **Highlight**

1. AdenoBooster™ Solution (cat# AD1012) could increase adenovirus' infection efficiency up to 50-fold in the cells.
2. There is no effect on cell differentiation.
3. For more details, please see the images in [Adeno-Purification Kits \(AD1001, AD1002 & AD1003\)](#).

### **Details**

Adenovirus enters the cells through the coxsackie-adenovirus receptor. The cells expressing a few numbers of the receptors are very difficult to be infected by adenovirus. AdenoBooster™ Solution (cat# AD1012) mediates both receptor-independent and dependent route for infection and increases the efficiency up to 50-fold. Mix the solution with adenovirus solution 10 minutes before adding to the cells.

### **Usage**

1. Make mixture: add 1/10<sup>th</sup> volume of AdenoBooster™ Solution to the adenovirus solution prepared by our kit.  
e.g. AdenoBooster™ Solution/Adenovirus= 1 µl/10µl  
Note: a). Make mixture at just before infection  
b). It is strongly recommended that Adenovirus is prepared by our adenovirus purification kits ([Adeno-Purification Kits; AD1001, AD1002 & AD1003](#)).
2. Incubate it at room temperature for 5-10min
3. Add it into the cell culture

### **If adenovirus is not prepared with our kit, follow the guide below:**

1. Measure OD at 260 nm to calculate virus particle number in 1 ml using the following equation.  
Particle number /ml = OD at 260 nm x dilution factor x 1.1 x 10<sup>12</sup>

This is done by diluting virus solution with 0.1% SDS (dissolved in TE or DPBS) by 20 fold.

For example: 50µl virus solution + 950µl 0.1% SDS.

2. Estimate the adenovirus volume to use (ml).
3. Calculate total virus particle.  
Total number = particle number/ml x volume to use (ml)



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4. Add 1 ~ 2  $\mu\text{l}$  of AdenoBooster™ solution to every  $5 \times 10^9$  particle adenovirus solution.
5. Wait for 10 minutes and apply to the cell directly.

## Example

OD at 260 nm is 0.05 with dilution factor 20 (OD was measured with 50  $\mu\text{l}$  adenovirus solution in 950  $\mu\text{l}$  0.1% SDS). In this example, we use 10  $\mu\text{l}$  viral solution.

Particle number = 0.05 (OD)  $\times$  20 (dilution factor)  $\times$   $1.1 \times 10^{12}$   $\times$  0.01 (volume) =  $11 \times 10^9$

Volume of AdenoBooster™ solution to be added =  $11 \times 10^9 / 5 \times 10^9 \times (1 \sim 2) = 2.2 \sim 4.4 \mu\text{l}$

So test 2.2 ~4.4  $\mu\text{l}$  of AdenoBooster™ solution.

## Storage Conditions

4 °C upon arrival

## Notes

AdenoBooster™ Solution (AD1012) has a little effect on the cells expressing higher number of coxsakie-adenovirus receptors such as 293 cells.

For more details, please go to the website at:

1. <https://atcgbio.com/prodcuts/adenovirus/adenovirus-companion-products/adenobooster-solution-cataloge-number-ad1012.html>
2. <https://atcgbio.com/prodcuts/adenovirus/adenovirus-purification-kits-ad1001-ad1002-ad1003.html>

Any question, please send email us at [info@atcgbio.com](mailto:info@atcgbio.com) or go to our website to send us message through [contact us](#) at <https://atcgbio.com>. We will reply you within 1-2 business days.

### FOR RESEARCH USE ONLY

Not for use in clinical or diagnosis purpose

#### Important Notice:

Even the recombinant adenoviruses are replication deficient by deletions in the E1 and E3 regions, recombinant human adenovirus has been classified in biosafety level II for agents considered of ordinary potential harm, and you need BL-2 level facility to work with it according to references issued by the NIH Office of Biosafety. It should be noted that cell culture facilities in most institutes are certified as BL-2 level. Wild type, replication competent adenoviruses could cause cold symptoms but generally do not cause serious illness. For more information on biosafety levels please visit <http://oba.od.nih.gov>