

# Validation data for NATE™

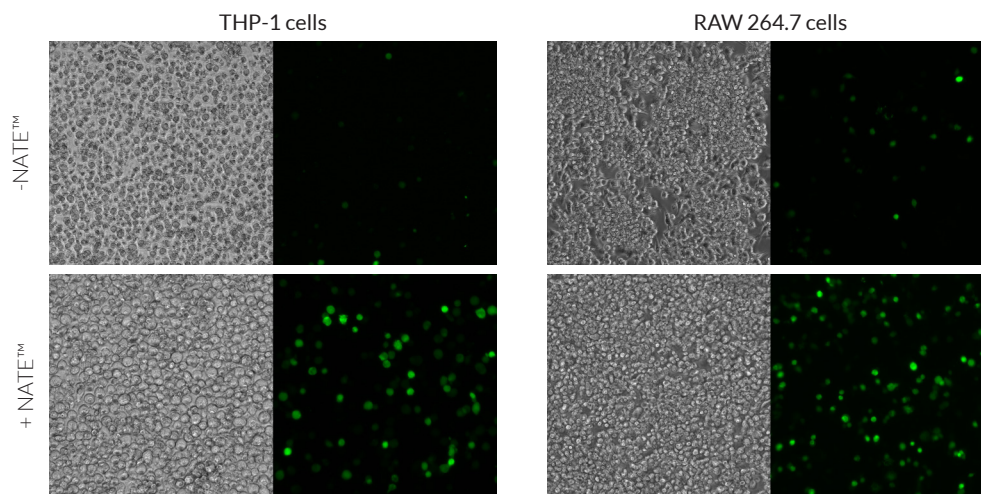
[www.invivogen.com/nate-transfection-transduction-enhancer](http://www.invivogen.com/nate-transfection-transduction-enhancer)

For research use only

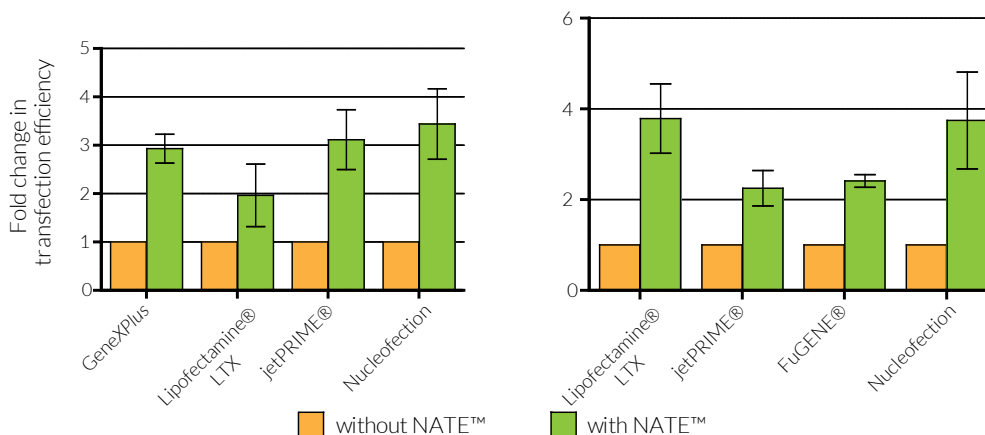
Version 24H01-AK

NATE™, a *nucleic acid transfection and transduction enhancer*, has been designed by InvivoGen to specifically increase both transfection and lentiviral transduction efficiencies in immortalized cell lines and primary T cells. It successfully increases transfection or transduction efficiencies, as tested using THP-1, RAW 264.7, as well as primary T cells (**Figures 1 - 4**). NATE™ can be added before all commonly used protocols including various transfection/transduction reagents. Additionally, NATE™ increases the transfection efficiency of larger plasmids (>10 kb) into these hard-to-transfect cell lines. Notably, NATE™ is gentle on cells showing no toxic effects in all tested conditions [data not shown].

## Greater transient transfection efficiency



**Figure 1.** THP-1 cells (left) or RAW 264.7 cells (right) were transiently transfected with a ~3 kb GFP-expressing plasmid using GeneXPlus and Lipofectamine® LTX, respectively. This was performed in the absence (top) and presence (bottom) of NATE™. After 48 hours, the transfected cells expressing GFP were visualized by fluorescence microscopy.



**Figure 2.** Transient transfections of an ~3 kb GFP-expressing plasmid into THP-1 (left) and RAW 264.7 cells (right) were performed using commonly used transfection methods such as GeneXPlus, Lipofectamine® LTX, jetPRIME®, and nucleofection. This was performed in the presence (green) and absence (yellow) of NATE™. After 48 hours, transfection efficiency (% GFP-expressing cells) was measured using flow cytometry. Data are presented as a fold change compared to transfection without NATE™.

### TECHNICAL SUPPORT

InvivoGen USA (Toll-Free): 888-457-5873

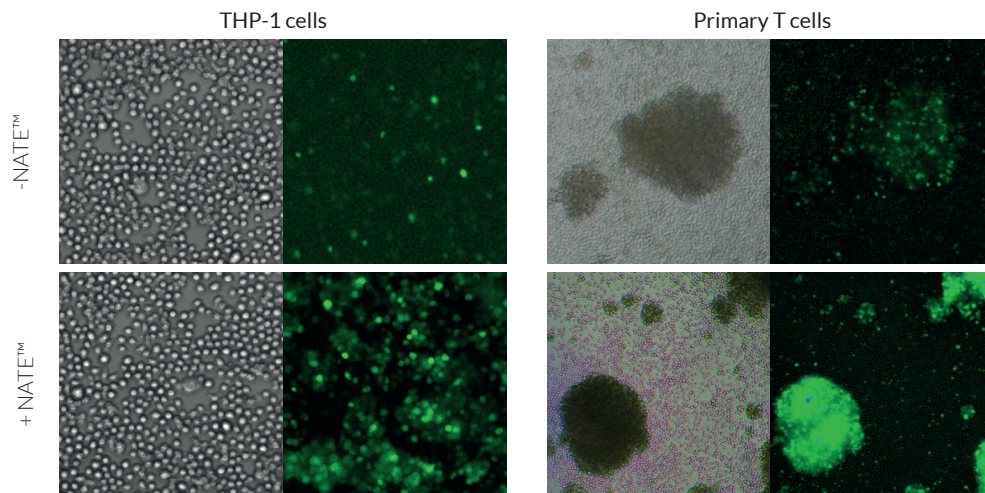
InvivoGen USA (International): +1 (858) 457-5873

InvivoGen Europe: +33 (0) 5-62-71-69-39

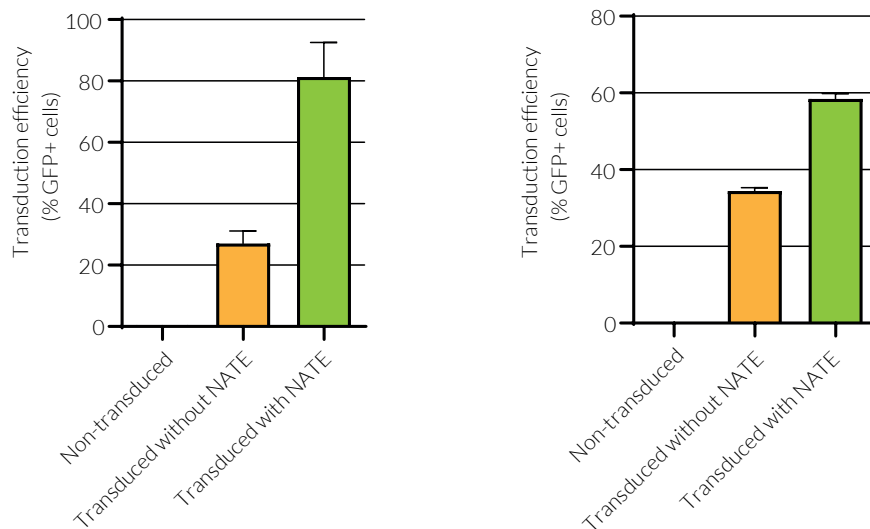
InvivoGen Asia: +852 3-622-34-80

E-mail: [info@invivogen.com](mailto:info@invivogen.com)

## Greater transduction efficiency



**Figure 3.** THP-1 cells (left) or human primary T cells (right) were transduced with 5 MOI and 1 MOI of a lentiviral vector encoding GFP, respectively. This was performed in the absence (top) and presence (bottom) of NATE™. After 48 hours, GFP expression was analyzed by fluorescence microscopy.



**Figure 4.** THP-1 cells (left) or human primary T cells (right) were transduced with 5 MOI and 1 MOI of a lentiviral vector encoding GFP, respectively. This was performed in the presence (green) and absence (yellow) of NATE™. After 48 hours, transduction efficiency (% GFP-expressing cells) was measured using flow cytometry.