GeneBlaster™ Emerald - ***Results***

OZ Biosciences is pleased to announce the launching of a new booster for Neurons transfection, ***GeneBlaster™ Emerald***. It was specifically developed to enhance transfection efficiency (percentage of cells transfected) combined with superior transgene expression level due to its improved formulation highly compatible with neuron survival. In this way, GeneBlaster Emerald is the ideal booster reagent for any type of neurons.

Main ***GeneBlaster Emerald*** features are:

1. Achieve superior transgene expression level in primary neurons
2. Prolong in vitro gene expression in primary neurons
3. Compatible with all transfection reagents (including Magnetofection™) or infection methods.
4. Simple, Ready-to-use and Rapid
5. Serum compatible, highly efficient & biodegradable

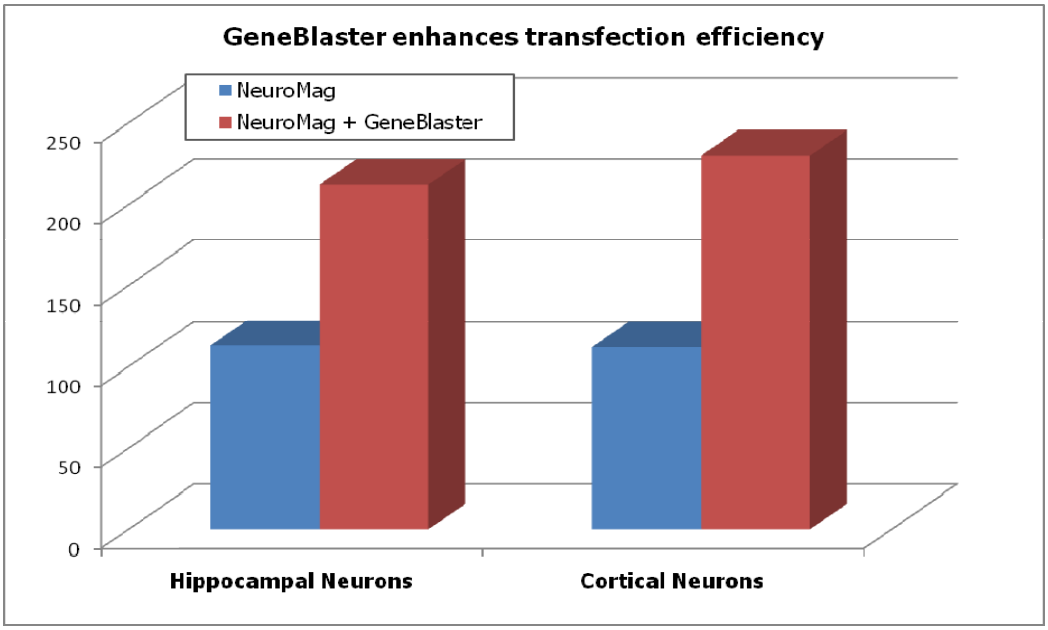
Transfection Methods

GeneBlaster Emerald reagent has been designed and developed to enhance transfection efficiency. Is is compatible with any transfection reagents or viral approach. It is especially suited to be used in combination with Magnetofection™ (NeuroMag reagent). It is appropriate for transfecting all type of nucleic acids including: plasmid DNA, siRNA, oligonucleotides, linearized DNA, double stranded RNA, mRNA, shRNA.

Cell types

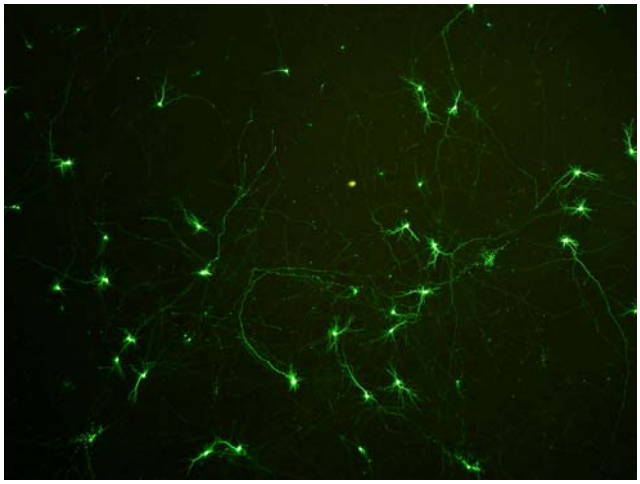
GeneBlaster Emerald is suitable for various neuron types. This reagent has been successfully tested on primary hippocampal and cortical neurons from rat embryos. If a particular neuron type is not listed, this does not imply that ***GeneBlaster Emerald*** is not going to work. OZ Biosciences is maintaining an updated list of cells successfully tested that is available on the website: www.ozbiosciences.com. You can also submit your data to tech@ozbiosciences.com so we can update this list and give you all the support you need.

GeneBlaster Emerald enhances transfection efficiency on Neurons

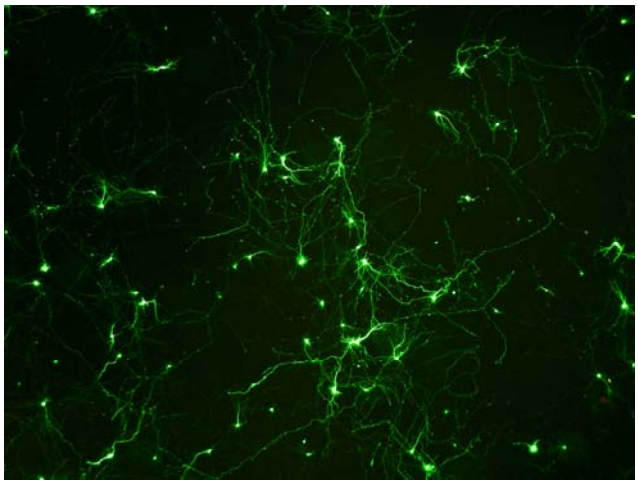


Hippocampal and Cortical neurons (DIV 7) were stimulated with 1X GeneBlaster Emerald. One hour after, they were transfected with 1 µg of pVectOZ-GFP plasmid DNA (Cat # PL00020, OZ Biosciences) per well in a 24-well plate. Transfections were performed with 3.5 µL per well of NeuroMag transfection reagent (Cat # NM51000), 30 min on a magnetic plate (Cat #MF10000). Percentage of transfected cells were measured 24h post transfection by counting GFP + Neurons. Viability is not affected by GeneBlaster treatment (Data not shown).

GFP expression in Hippocampal Neurons



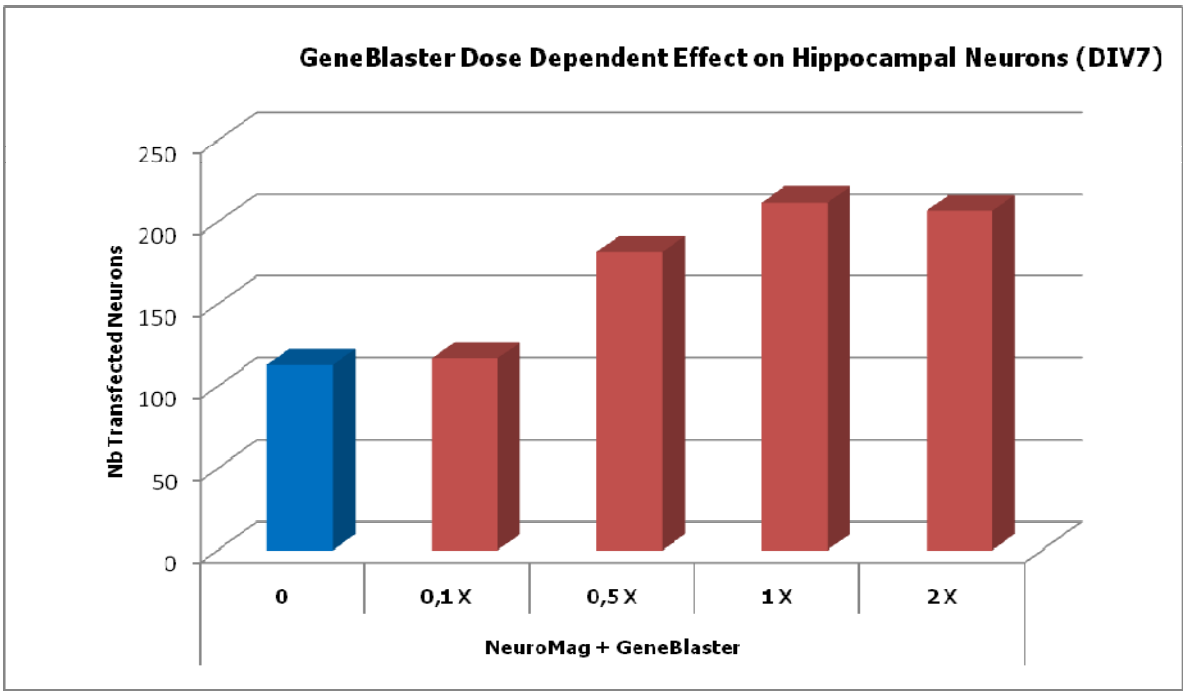
NeuroMag



GeneBlaster Emerald 1X with NeuroMag

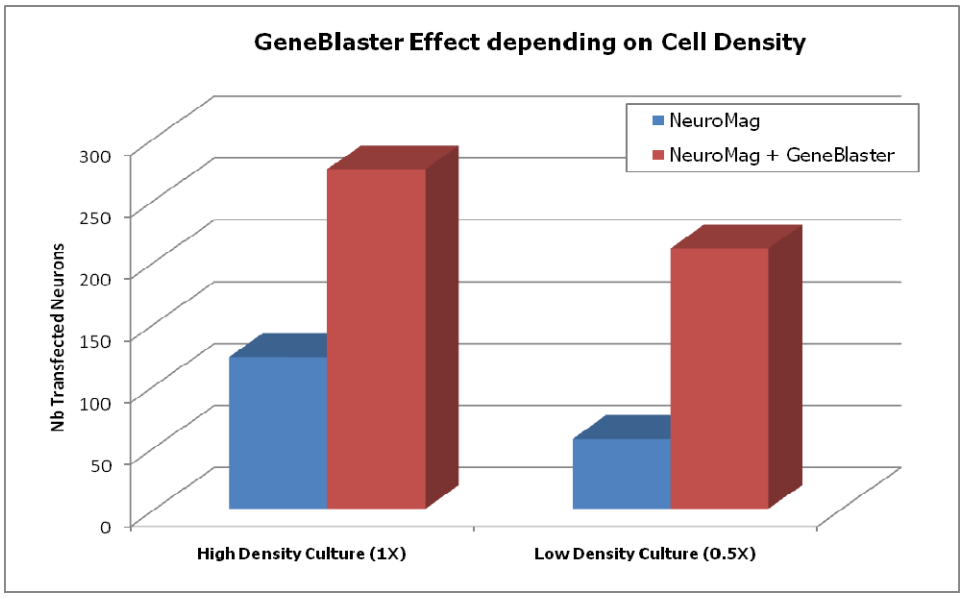
Hippocampal Neurons (DIV 7) were transfected with 1 µg of pVectOZ-GFP plasmid DNA (Cat # PL00020) per well in a 24-well plate in presence of 3.5 µL of NeuroMag (Cat # NM51000), without or with GeneBlaster Emerald prior Stimulation. GFP expression was monitored from 24 h to 5 days after transfection by fluorescence microscopy.

GeneBlaster Emerald enhances transfection efficiency in a Dose Dependent Manner



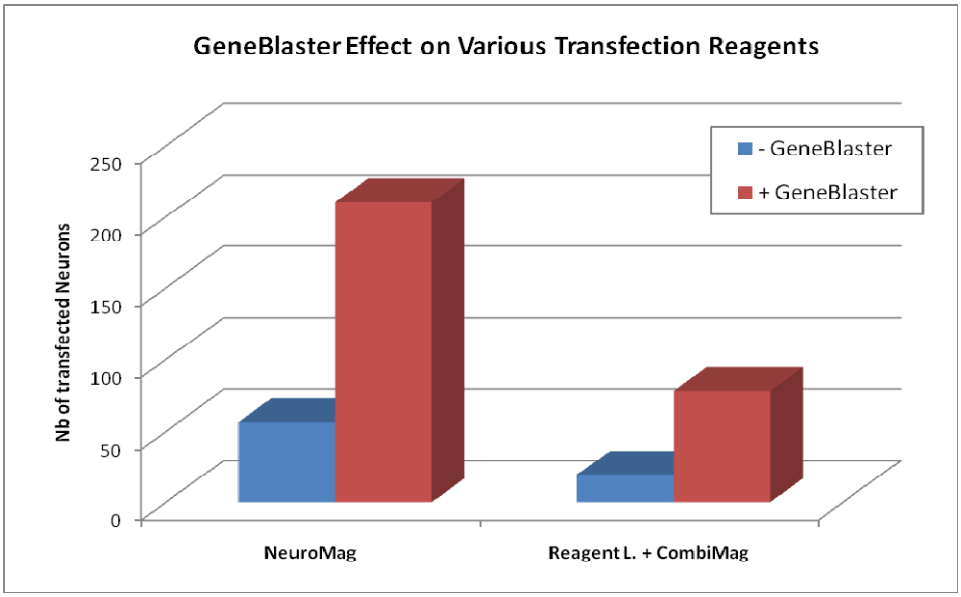
Hippocampal neurons (DIV 7) were stimulated with different dilutions of GeneBlaster Emerald. After one hour, they were transfected with 1 µg of pVectOZ-GFP plasmid DNA (Cat # PL00020) per well in a 24-well plate. Transfections were performed with 3.5 µL per well of NeuroMag transfection reagent (Cat # NM51000), 30 min on a magnetic plate (Cat #MF10000). Percentage of transfected cells were measured 24h post transfection by counting GFP + Neurons.

GeneBlaster Emerald and Cell Culture Density



Depending on the cell culture density GeneBlaster dilution has to be optimized. Hippocampal Neurons (DIV 7) were stimulated with 0.5X or 1X dilution of GeneBlaster Emerald depending on the cell culture density. One hour after, they were transfected as previously described. Percentage of transfected cells were measured 24h post transfection by counting GFP + Neurons.

GeneBlaster Emerald works with various Lipid Reagents



GeneBlaster effect on neurons transfected with NeuroMag or a commercial lipid reagent (L.) + CombiMag (Cat # CM20100, OZ Biosciences). After 1h of stimulation with 0.5 X GeneBlaster Emerald, hippocampal neurons (DIV 7), were transfected either with 1µg of DNA using 3.5 µL of NeuroMag or with 0.5 µg DNA for 3.5 µL of reagent L. and 0.5µL of CombiMag, 30 min on a magnetic plate (Cat #MF10000). Percentage of transfected cells were measured 24h post transfection by counting GFP + Neurons.

Bibliographic references

Please consult our list of references available on the website: www.ozbiosciences.com.