Tohoku Univ. Technology

Calcium phosphate vector

Gene transfer with low toxicity and high efficiency

Overview

Calcium phosphate, which has long been used as a vector to transfer genes into cells, is easy to prepare and has a good shelf life, but has a problem of low gene transfer efficiency. On the other hand, it has recently been reported that gene transfer efficiency is improved by modifying oligoarginine in the vector. In the gene transfer using calcium phosphate vector modified with oligoarginine, we found that the gene transfer efficiency was improved by pre-treating target cells with a potassium-sparing diuretic.

- •The present invention is cheaper and simpler than gene transfer methods such as lipofection, electroporation, microinjection, and viral vectors.
- •It is less cytotoxic than non-viral gene transfer agents.
- •Treatment of target cells with potassium-sparing diuretics improved gene transfer efficiency up to 10 fold.

Product Application

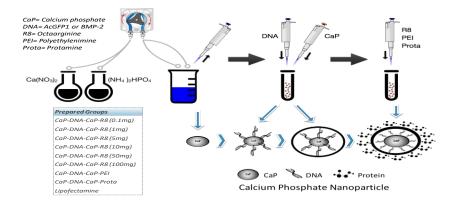
- ☐ Gene transfer agent (for human/animal therapy)
- ☐ Gene transfer kit (reagent)

IP Data

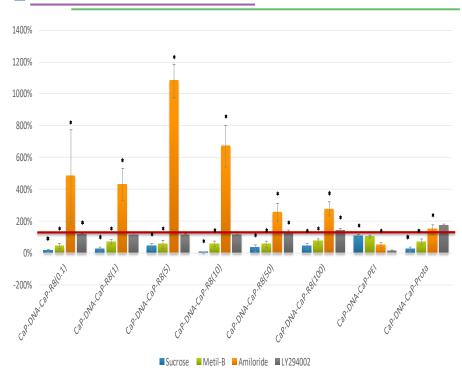
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Gene transfer efficiency after treatment with a potassium-sparing diuretic



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