

# High Efficiency Gene Transfer into Stem Cells

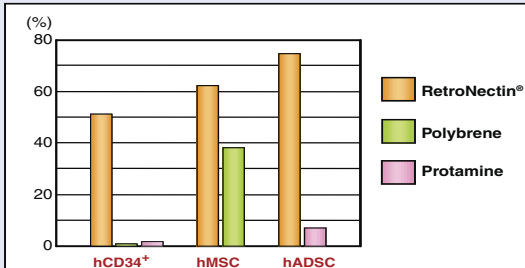
## RetroNectin<sup>®</sup>

### Recombinant Human Fibronectin Fragment

Use of RetroNectin<sup>®</sup>-based gene transduction protocols dramatically enhances the efficiency of retrovirus or lentivirus-mediated gene transfer into mammalian cells. RetroNectin<sup>®</sup> is a recombinant polypeptide consisting of three functional domains derived from the human fibronectin. RetroNectin<sup>®</sup>'s enhancement of gene transduction efficiency is hypothetically due to co-localization of retroviral particles and target cells on the RetroNectin<sup>®</sup> molecule. Recent experiments demonstrate RetroNectin<sup>®</sup>'s efficacy on stem cells.

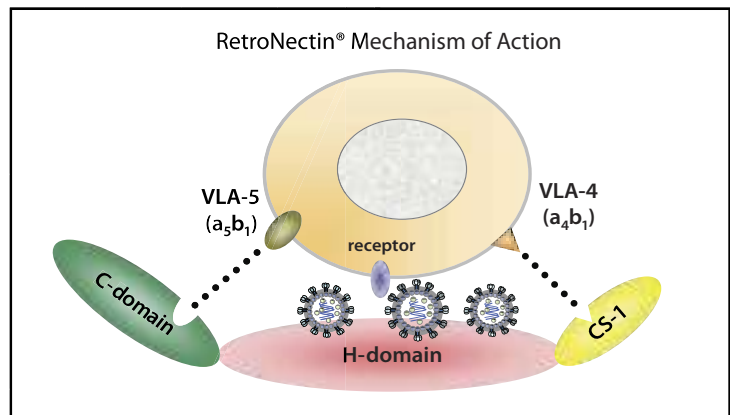
- **Highly Efficient Retroviral or Lentiviral Gene Transfer** into Stem Cells\*
- **No Polybrene Required** for Transduction
- **Facilitates development of innovative protocols** for proliferation of cells carrying a transferred gene, maintaining the function of the cells, and increasing transplant efficiency

\* carrying VLA-4 and/or VLA-5 cell surface receptors



Comparison of retrovirus-mediated gene transduction efficiency in various methods into human stem cells.

RetroNectin<sup>®</sup> enables and enhances retrovirus-mediated gene transfer into stem cells which express lower levels of GALV envelope receptor, such as hCD34<sup>+</sup> or hADSC



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