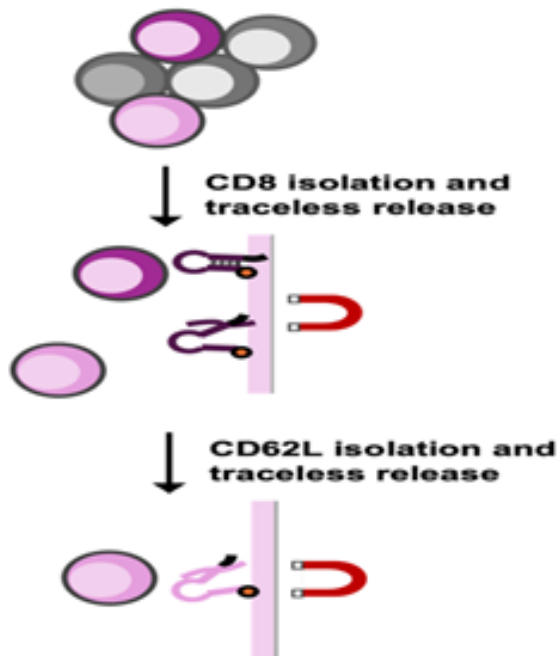


CD62L (L-Selectin) Aptamer for T Cell Isolation

A novel aptamer technology designed to isolate naïve and memory T cells by targeting the CD62L (L-Selectin) marker, facilitating applications in diagnostics, therapeutics, and research. The aptamer can also be used to detect soluble CD62L, a potential diagnostic marker for various diseases.

Isolation of naïve and memory T cells



What is the Problem?

Isolating specific T cell populations is crucial for various medical and research applications, including immunotherapy, disease diagnostics, and fundamental immunological studies. Traditional methods, such as antibody-based cell sorting, can be costly, time-consuming, and sometimes lack the specificity required for effective T cell isolation. The development of aptamers demonstrates a promising alternative to traditional methods by providing a more stable and cost-effective solution for isolating specific T cell populations.

What is the Solution?

Technology ID

BDP 8794

Category

Selection of Available
Technologies
Therapeutics/Other

Authors

Suzie Hwang Pun

[Learn more](#)



This technology introduces an aptamer that specifically binds to the CD62L (L-Selectin) marker on T cells. Aptamers are short, single-stranded DNA or RNA molecules that can fold into unique three-dimensional shapes, allowing them to bind selectively to target molecules. By targeting CD62L, which is expressed on naïve and central memory T cells, this aptamer enables the efficient and specific isolation of these T cell subsets. The process involves binding the aptamer to CD62L, separating the bound T cells, and then recovering the T cells by disrupting the aptamer-CD62L interaction.

What is the Competitive Advantage?

Specificity: The aptamer provides high specificity for CD62L, ensuring precise isolation of target T cell populations.

Cost-Effective: Aptamers can be synthesized chemically, offering a more cost-effective alternative to antibody-based methods.

Versatility: This technology can be applied in various fields, including diagnostics, therapeutics, and research.

Ease of Use: The aptamer-based method simplifies the T cell isolation process, making it accessible for a wide range of applications.

Patent Information:

[WO2024158836A2](#)