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> Significantly improved design for more safety and consistency
> Maximum safety and confidence during storage and transportation

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SAMPLE INTEGRITY
From the worldwide leader in cell stabilization

Cyto-Chex® BCT

Time and temperature can present obstacles to sample integrity. Often, sample collection in distant or resource-limited areas further complicates the concerns of sample preservation when analysis cannot be performed immediately.

Ensure the integrity of your samples with Cyto-Chex BCT from Streck.

Cyto-Chex BCT is a direct-draw blood collection tube which preserves peripheral blood sample qualitative and quantitative leukocyte subset characteristics. Cyto-Chex BCT is FDA 510(k) cleared for consistent recovery of HIV-associated lymphocyte subsets for up to 14 days.

Immunophenotypic Analysis of HIV+ Patient Samples

<table>
<thead>
<tr>
<th>Samples</th>
<th>EDTA tube</th>
<th>Cyto-Chex BCT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Initial Test CD4+ cells / µL</td>
<td>Day 7 CD4+ cells / µL</td>
</tr>
<tr>
<td>1</td>
<td>709</td>
<td>760</td>
</tr>
<tr>
<td>2</td>
<td>511</td>
<td>561</td>
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<td>3</td>
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<td>4</td>
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<td>340</td>
</tr>
<tr>
<td>5</td>
<td>83</td>
<td>73</td>
</tr>
</tbody>
</table>

Peripheral blood samples stored in Cyto-Chex BCT provide the same results as tests performed on fresh specimens.

Minimize the adverse effects of time, storage and transportation for all your patient sample collections.

- Maintain sample integrity from collection site to analysis location and minimize patient redraws and the loss of critical data
- Samples are stable at room temperature, simplifying storage and shipping requirements and reducing associated logistical expenses
- Batch samples to optimize laboratory workflow and improve overall laboratory efficiency

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**Transfection Reagent**

The FectoPRO is an optimized transfection reagent which has been designed for high yields in medium- and large-scale production of proteins and antibodies in mammalian cells. FectoPRO delivers very high protein yields in CHO and HEK cell line systems. FectoPRO will also produce up to three times more protein using half the DNA required by other leading commercial transfection reagents. In addition, scientists working with transient gene expression systems using FectoPRO will be able to benefit from reproducibility experiment-to-experiment and between reagent batches. The FectoPRO transfection reagent offers scientists working in pharmaceuticals and biotechnology specific advantages over other commercial transfection reagent offerings for bio-production. The reagent is well characterized in terms of chemical structure and is supplied ready-to-use. FectoPRO is also manufactured and formulated using a highly specific and controlled production process in Polyplus’ dedicated manufacturing facility.

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www.polyplus-transfection.com

**Oligonucleotide Delivery Agent**

A novel vitamin modifier has shown in initial tests to have the potential of improving cell delivery of oligonucleotides. The new reagent, 5’-Nicin-CE Phosphoramidite, is easily incorporated during solid phase oligo synthesis. The nicin-based modifier offers several advantages over the use of conventional lipophilic delivery agents, including reduced risk of in vivo toxicity, and removes the necessity of cleaving the delivery reagent once in the cell. These benefits make vitamins an attractive method for the delivery of therapeutic oligonucleotides. While lipophilic modifier reagents have been shown to enhance cell penetration, vitamin-mediated cell delivery offers a distinct advantage due to the fact that vitamins are required, but not produced by cells. As such, it is believed that interaction with a specific binding protein is required before the vitamin-oligo conjugate is internalized. Not only does this enhance delivery and overcome the risk of toxicity, but it also offers some exciting potential for cell targeting.

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**Target-Enrichment Kit**

The SureSelect<sup>XT</sup> Reagent Kit is a revolutionary next generation sequencing target enrichment solution that produces sample-to-sequencing-ready-libraries in just seven hours with only 50 ng of input gDNA. Designed to meet the exacting needs of clinical researchers for a fast, easy, same-day sample-to-sequencing-workflow. SureSelect<sup>XT</sup> kits are three times faster than existing transposase-based methods and require 30% less hands-on time. They are also optimized for use with samples of limited availability and provide superior coverage of genomic targets for confident variant calling. Combined with the fastest sequencers on the market, these kits make sample-to-data in 24–36 hours a reality. SureSelect<sup>XT</sup> kits’ unprecedented speed is achieved by coupling transposase-based library preparation with major advancements in hybridization chemistry, significantly decreasing hybridization time from 16 hours to 90 minutes while maintaining high performance. Its proven hybridization technology enables the sensitivity and specificity required for the complete and accurate variant analysis of exomes or custom genomic regions.

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**Tumor Panel**

Fully validated on formalin-fixed, paraffin-embedded samples, the new 60-gene next generation sequencing hybridization-based SureSeq Solid Tumor Panel offers researchers accurate and reliable solid tumor profiling for both known and novel variants. The content of the panel has been defined by recognized cancer experts, covering key genes for a range of cancer types. All exons of these genes are fully covered, including mutation hotspots, enabling both detection and discovery of known and novel variants, respectively. The hybridization-based SureSeq Solid Tumour Panel minimizes polymerase chain reaction bias and duplications commonly associated with alternative enrichment methodologies, enabling greater run-to-run consistency. This is particularly important in situations where there is limited sample or where the ability to detect minor allele frequencies is required. Such sample types require a highly uniform and sensitive enrichment and OGT’s expert bait design ensures this by providing efficient and improved uniformity of coverage of the targeted regions.

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Bat man wins young scientist prize in Stockholm. Are you next?

The 2014 Science and SciLifeLab Prize is now open and we are looking for new bright ideas. Are you like Daniel Streicker? Are you a recent PhD graduate eager to win a prize? Daniel is a true “bat man” having spent many hours in dark caves studying bats, to better understand how infectious diseases emerge and establish in new host species. It is for this work that Daniel was published in the journal Science, December 6, 2013, as the Grand Prize winner of the 2013 Science & SciLifeLab Prize for Young Scientists.

The journal Science and SciLifeLab have come together to recognize and celebrate excellence in PhD Research. The Science & SciLifeLab Prize has been established to support young scientists at the start of their career.

The four categories for the 2014 prize are: Cell and Developmental Biology; Genomics and Proteomics; Environment; and Translational Medicine. The Grand Prize winner will receive 25,000USD and the other three Category Prize winners will receive 3,000USD each. The Grand Prize winning essay will be published in Science and the Category Prize winners will be published in Science online.

The deadline for submissions is August 1, 2014.
For further details and to enter, please visit: www.sciencemag.org/scilifelabprize

For over 130 years the journal Science has been the world’s leading journal of original scientific research, global news and commentary.

SciLifeLab is a collaboration among four universities in Stockholm and Uppsala, Sweden, and is a national center for molecular biosciences with focus on health and environmental research.

This prize is made possible with the kind support of the Knut and Alice Wallenberg Foundation.
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