LymphoTrack® Dx TRG Assay - PGM, Product Flyer

Interest in any of the products, request or order them at Bio-Connect Diagnostics.
Intended Use

The LymphoTrack® Dx TRG Assay for the Life Technologies Ion PGM® is an in vitro diagnostic product intended for next-generation sequencing (NGS) based determination of the frequency distribution of TRG gene rearrangements in patients suspected with having lymphoproliferative disease. This assay aids in the identification of lymphoproliferative disorders.

Background

The LymphoTrack Dx TRG Assay – PGM represents a significant improvement over existing fragment analysis clonality assays by providing two important and complementary uses:

1. Detects initial clonal populations
2. Identifies sequence information required to track clonal rearrangements in subsequent samples

The human T Cell Receptor Gamma (TRG) gene locus on chromosome 7 (7q14) includes 14 V (variable region) genes (Group I, II, III, and IV), 5 J (joining region) gene segments, and 2 C (constant region) genes spread over 200 kilobases.

During development of lymphoid cells, antigen receptor genes undergo somatic gene rearrangements. Specifically during T-cell development, genes encoding TRG molecules are assembled from multiple polymorphic gene segments that undergo rearrangement generating V-J combinations unique in both length and sequence. Since leukemias and lymphomas originate from the malignant transformation of individual lymphoid cells, all leukemias and lymphomas generally share one or more cell-specific or "clonal" antigen receptor gene rearrangements. Therefore, tests that detect TRG clonal rearrangements can be useful in the study of B- and T-cell malignancies.

Method

This assay utilizes a single multiplex master mix to target conserved V and J regions of TRG that are described in lymphoid malignancies. Primers are designed with Life Technologies adapters and 12 different indices; thereby, allowing amplicons generated from different TRG master mixes to be pooled together to generate a library for loading onto a single PGM sequencing chip. The associated LymphoTrack Dx PGM Software provides interpretation of the data via a simple and streamlined method of analysis and visualization of data. By following the guidelines provided in the Instructions for Use samples can be easily interpreted for the evidence or no evidence of clonality.

Specimen Requirement

50 ng of high quality DNA.

References


Ordering Information

<table>
<thead>
<tr>
<th>Catalog #</th>
<th>Products</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-227-0007</td>
<td>LymphoTrack Dx TRG Assay - PGM</td>
<td>12 indices - 5 sequencing reactions each</td>
</tr>
<tr>
<td>9-500-0007</td>
<td>LymphoTrack Dx PGM Software</td>
<td>1 CD complimentary with purchase</td>
</tr>
</tbody>
</table>

This product is a CE-IVD assay for In Vitro diagnostic use.
Reagents

These products are covered by one or more of the following patents and patent applications owned by or exclusively licensed to Invivoscribe Technologies, Inc. (IVS). United States Patent No. 7,785,783, United States Patent 8859748 B2 and other pending applications originating from the United States Patent Application Number 10/531,106, European Patent Number EP 1549764B1 and other pending patent applications originating from European Patent Application Numbers 03756746.8 and 04732655.9 (16 countries), Japanese Patent Number JP04708029B2, Japanese Patent Application Number 2006-529437, Brazil Patent Application Number PI0410283.5, Canadian Patent Application Number 2525122, Indian Patent Application Number 5792/DELNP/2005, Mexican Patent Application Number PA/a/2005/012102, Chinese Patent Application Number 200480016603.5, and Korean Patent Application Number 10-2005-7021561. Use of these products may require nucleic acid amplification methods such as Polymerase Chain Reaction (PCR). Any necessary license to practice amplification methods or to use reagents, amplification enzymes or equipment covered by third party patents is the responsibility of the user and no such license is granted by Invivoscribe Technologies, Inc., expressly or by implication. ©2015 Invivoscribe Technologies, Inc. All rights reserved. The trademarks mentioned herein are the property of Invivoscribe Technologies, Inc. and/or its affiliates, or (as to the trademarks of others used herein) their respective owners.