Gene expression profiling of hESC derived eGFP-SOX17+ endoderm cells - Study GBCO4216

**Genomics Study Specifications**

**Study Name**  
Gene expression profiling of hESC derived eGFP-SOX17+ endoderm cells

**Contact Name**  
Seung Kim (Stanford University)

**Publication**  

**My Strategies**  
Return to My Strategies page

**Classification**  
Cell differentiation

**Links**  
- ORG-Biosimilars Graph
- ArrayExpress

**BCBC Release Date**  
July 29, 2011

**Public Release Date**  
July 29, 2011

**Citation**  

**Synopsis**

Using homologous recombination in human ESC, we inserted an enhanced green fluorescent protein (eGFP) transgene into a locus encoding a postulated marker of human endoderm, SOX17 in H9 human embryonic stem cells. This allowed purification of SOX17+ hESC endodermal progeny by fluorescence activated cell sorting (FACS) to generate microarray gene expression profile. Using Wnt3 and Activin to differentiate hSOX17-2 to stage 1 cells, and subsequently FGF10 and cyclopamine to stage 2 cells, we isolated eGFP+ cells by FACS at each stage, performed microarray analysis.

**Platform types**  
Expression, Expression microarray

**Platforms**  
- Affymetrix Human Genome U133 Plus 2.0

**Study Design Type**  
- cell_type_comparison_design
- development_or_differentiation_design
- is_expressed_design

**Access to Study Data**

This Study Data is publicly available to all users.

**Gene List(s)**

Browse related gene lists by clicking on the link(s) below:

- Cell Surface Markers: hSOX17-2 Endoderm
- hSOX17-2 derived endoderm cells and undifferentiated H9 ES cells
Use the following form(s) to refine the parameters and add the gene list to a strategy:

<table>
<thead>
<tr>
<th>hSOX17-2 Stage 1 derived endoderm cells versus H9 hESC cells</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fold Change Greater Than:</strong></td>
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<tr>
<td><strong>Confidence Level:</strong></td>
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</tbody>
</table>

For a microarray experiment a result with high confidence has a confidence level of at least 80%.

For a ChIP-chip experiment a result with high confidence has a confidence level of at least 90% and all fold changes are positive.

Reference (Denominator): H9 hESC

Find Genes

<table>
<thead>
<tr>
<th>hSOX17-2 Stage 2 derived endoderm cells versus H9 hESC cells</th>
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<table>
<thead>
<tr>
<th>hSOX17-2 Stage 2 versus Stage 1 derived endoderm cells</th>
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</thead>
</table>

**Genome Browser**
There are no genome browser tracks currently available for this study.

**Lists of Locations**
There are no genomic location datasets currently available for this study.

**Repositories**
Kim Lab

<table>
<thead>
<tr>
<th>Stock #: Not provided</th>
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<td>Availability Notes: Not provided</td>
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**Comments**
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