Supp Figure 1

**a**

NOTCH1 Ectoderm

![Graph showing relative mRNA levels for NOTCH1 with and without Si-CUL4B and RA](image)

PAX3 Meso-Endoderm

![Graph showing relative mRNA levels for PAX3 with and without Si-CUL4B and RA](image)

GATA6 Meso-Endoderm

![Graph showing relative mRNA levels for GATA6 with and without Si-CUL4B and RA](image)

**b**

<table>
<thead>
<tr>
<th>Gene</th>
<th>Relative mRNA level (Fold)</th>
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<tbody>
<tr>
<td>HOXA1</td>
<td><img src="image" alt="Graph showing relative mRNA levels for HOXA1 with and without Si-CUL4B and RA" /></td>
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<tr>
<td>HOXA7</td>
<td><img src="image" alt="Graph showing relative mRNA levels for HOXA7 with and without Si-CUL4B and RA" /></td>
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<td>HOXA9</td>
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**c**

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<th>ChIP/Input(%)</th>
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**d**

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</table>

See next page for figure caption.
Supp Figure 2

(a) Relative mRNA levels (fold) for various Hox genes under RA treatment (+) compared to untreated (-).

(b) ChIP/input% for H2AK119ub at different Hox loci under RA treatment (+) compared to untreated (-).

(c) ChIP/input% for H3K27me3 at different Hox loci under SiCUL4B treatment (+) compared to untreated (-).
**Supp Figure 3**

**a**

- Apoptosis
- Focal adhesion
- Gap junction
- Tight junction
- Endocytosis
- Phagosome
- Calcium signaling pathway
- HIF-1 signaling pathway
- PI3K-Akt signaling pathway
- Protein processing in endoplasmic reticulum
- RNA polymerase
- DNA replication
- EGFR tyrosine kinase inhibitor resistance
- Central carbon metabolism in cancer
- MicroRNAs in cancer
- Pathways in cancer
- Viral carcinogenesis
- Prostate cancer
- Dilated cardiomyopathy
- Hyperplastic chondrometaplasia
- Systemic lupus erythematosus
- Legionellosis
- Pathogenic Escherichia coli infection
- Epstein-Barr virus infection
- HTLV-I infection
- Influenza A
- Alzheimer’s disease
- Huntington’s disease
- Parkinson’s disease
- Alcoholism
- Glycolysis / Gluconeogenesis
- Oxidative phosphorylation
- Aminoacyl-tRNA biosynthesis
- Carbon metabolism
- Metabolic pathways
- N-Glycan biosynthesis
- Steroid biosynthesis
- Estrogen signaling pathway
- Antigen processing and presentation
- NOD-like receptor signaling pathway

**b**

- siRNA-RORγ - +
- CUL4B
- H3
- Ratio: 1 1.16

**c**

- **HOXA1**
- **HOXA7**
- **HOXA9**
- **HOXA10**
- **HOXB1**
- **HOXB7**

**d**

- **HOXA1**
- **HOXA7**
- **HOXA9**
- **HOXA10**
- **HOXB1**
- **HOXB7**
Supp Figure 4

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Figure 4