SimpleChIP® Human CD11b Promoter Primers

**Description:** SimpleChIP® Human CD11b Promoter Primers contain a mix of forward and reverse PCR primers that are specific to a region of the human cluster of differentiation molecule 11b (CD11b) promoter. These primers can be used to amplify DNA that has been isolated using chromatin immunoprecipitation (ChIP). Primers have been optimized for use in SYBR® Green quantitative real-time PCR and have been tested in conjunction with SimpleChIP® Enzymatic Chromatin IP Kits #9002 and #9003 and ChIP-validated antibodies from Cell Signaling Technology®. CD11b encodes the mouse CD11 antigen-like family member B (integrin alpha-M), a cell surface receptor involved in adhesion to various lymphocytes and in binding to complement C3b, mediating uptake of complement-receptor involved in adhesion to various lymphocytes and in antigen-like family member B (integrin alpha-M), a cell surface receptor involved in adhesion to various lymphocytes and in binding to complement C3b, mediating uptake of complement.

PCR product melting curves were obtained for real-time PCR reactions performed using SimpleChIP® Human CD11b Promoter Primers. Data is shown for both duplicate PCR reactions using 20 ng of total DNA.

**Applications**

<table>
<thead>
<tr>
<th>Applications</th>
<th>Species Cross-Reactivity*</th>
</tr>
</thead>
<tbody>
<tr>
<td>ChIP</td>
<td>H</td>
</tr>
</tbody>
</table>

**Primer Anneal/Extension**

- **65°C**

**PCR Product Length**

- **107 bp**

**Storage:** Supplied in nuclease-free water at a concentration of 5 μM (each primer is at a final concentration of 5 μM). Store at -20°C.

**Directions for Use:**

1. Label the appropriate number of PCR tubes or PCR plates compatible with the model of real-time PCR machine to be used. PCR reactions should be performed in duplicate and should include a tube with no DNA to control for contamination, and include a tube with no DNA to control for temperature. PCR reactions should be performed in duplicate and should include a tube with no DNA to control for contamination, and should include a tube with no DNA to control for contamination, and a serial dilution of a 2% total input chromatin DNA (undiluted, 1.5, 1.25, 1.125), which is used to create a standard curve and determine amplification efficiency.

2. Add 2 μl of the appropriate ChIP DNA sample to each tube or well of the PCR plate.

3. Prepare a master PCR reaction mix as described below. Add enough reagents for two extra reactions to account for loss of volume. Add 18 μl of the master PCR reaction mix to each PCR reaction tube or well of the PCR plate.

**Reagents**

<table>
<thead>
<tr>
<th>Volume for 1 PCR Reaction (20 μl)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nuclear-free H₂O</td>
</tr>
<tr>
<td>5 μM SimpleChIP® Primers</td>
</tr>
<tr>
<td>2X SYBR® Green Reaction Mix</td>
</tr>
</tbody>
</table>

4. Start the following PCR reaction program:
   a. Initial Denaturation: 95°C for 3 min.
   b. Denaturation: 95°C for 15 sec.
   c. Anneal and Extension: Primer-specific temp. for 60 sec.
   d. Repeat steps b and c for a total of 40 cycles.

5. Analyze quantitative PCR results using software provided with the real-time PCR machine.

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com