<table>
<thead>
<tr>
<th>Name</th>
<th>Icon</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leptin</td>
<td><img src="image" alt="Leptin" /></td>
<td>Hormone expressed in hypothalamus, stimulates the pathway that results in reduction of food intake (anorexigenic effect)</td>
</tr>
<tr>
<td>Long-form of leptin receptor</td>
<td><img src="image" alt="Leptin" /></td>
<td>The receptor for leptin, in cell membrane</td>
</tr>
<tr>
<td>Janus kinase 2</td>
<td><img src="image" alt="JAK2" /></td>
<td>Phosphorylates itself and Tyrosine</td>
</tr>
<tr>
<td>Signal transducer and activator of transcription-3</td>
<td><img src="image" alt="STAT3" /></td>
<td>Phosphorylated tyrosine leads to activated STAT3/STAT5, which enter the nucleus to translocate their respective genes</td>
</tr>
<tr>
<td>Phosphate group</td>
<td><img src="image" alt="Phosphate" /></td>
<td>Acts as an on/off switch for signaling pathways</td>
</tr>
<tr>
<td>Tyrosine</td>
<td></td>
<td>An amino acid</td>
</tr>
<tr>
<td>Cytokine</td>
<td></td>
<td>Affects signaling of cells around it</td>
</tr>
<tr>
<td>Mitogen activated protein kinase</td>
<td></td>
<td>Regulates cell activity, such as survival, differentiation, and/or proliferation</td>
</tr>
<tr>
<td>Suppressor of cytokine signalling 3</td>
<td><img src="image" alt="Suppressor" /></td>
<td>Negative feedback, stops insulin and leptin signalling by inhibiting JAK2/STAT3 pathway</td>
</tr>
<tr>
<td>Insulin receptor substrate</td>
<td><img src="image" alt="IR5" /></td>
<td>Adaptor protein, adds more protein docking sites to the receptor</td>
</tr>
<tr>
<td>Extracellular regulated kinase</td>
<td></td>
<td></td>
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<tr>
<td><strong>proopiomelanocortin</strong></td>
<td>Expression is stimulated when leptin binds to receptor, which leads to reduced food intake, less usage of energy, and reduced body weight</td>
<td></td>
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<tr>
<td>-------------------------</td>
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<tr>
<td><strong>Cocaine and amphetamine regulated transcript</strong></td>
<td></td>
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<tr>
<td><strong>insulin</strong></td>
<td>Hormone that regulates glucose levels</td>
<td></td>
</tr>
<tr>
<td><strong>Phosphatidylinositol 3-kinase (PI3K)</strong></td>
<td>Converts PIP2 into PIP3</td>
<td></td>
</tr>
<tr>
<td><strong>Phosphatidylinositol biphosphatate (PIP2)</strong></td>
<td>When phosphorylated into PIP3, it activates PDK1</td>
<td></td>
</tr>
<tr>
<td><strong>Phosphoinositide-dependent protein kinase (PDK1)</strong></td>
<td>Phosphorylates Akt</td>
<td></td>
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<tr>
<td><strong>Protein kinase B (Akt)</strong></td>
<td>Enters nucleus, phosphorylating FOX01</td>
<td></td>
</tr>
<tr>
<td><strong>Forkhead box O1</strong></td>
<td>When inactivated by phosphorylation, it allows STAT3 to bind to the <em>pomc</em> promoter</td>
<td></td>
</tr>
</tbody>
</table>