MetaCore
Quick reference guide

User Data

<table>
<thead>
<tr>
<th>NETWORKS</th>
<th>MAPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up-regulated (+)</td>
<td>Object has user data with positive value</td>
</tr>
<tr>
<td>Down-regulated (-)</td>
<td>Object has user data with negative value</td>
</tr>
<tr>
<td>Mixed-signal (+ / -)</td>
<td>Object has user data with both positive and negative values</td>
</tr>
<tr>
<td>Gene variants</td>
<td>Object has user data with gene variants</td>
</tr>
<tr>
<td>Mixed data</td>
<td>Object has user data with both expression values and gene variants</td>
</tr>
</tbody>
</table>

Network Objects

<table>
<thead>
<tr>
<th>ENZYMES</th>
<th>GENERIC CLASSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generic enzyme</td>
<td>Receptor ligand</td>
</tr>
<tr>
<td>Generic kinase</td>
<td>Transcription factor</td>
</tr>
<tr>
<td>Protein kinase</td>
<td>Protein</td>
</tr>
<tr>
<td>Lipid kinase</td>
<td>Compound</td>
</tr>
<tr>
<td>Generic phosphatase</td>
<td>Predicted metabolite or user’s structure</td>
</tr>
<tr>
<td>Generic phospholipase</td>
<td>Inorganic ion</td>
</tr>
<tr>
<td>Generic protease</td>
<td>Reaction</td>
</tr>
<tr>
<td>Metalloprotease</td>
<td>DNA</td>
</tr>
<tr>
<td>G-alpha</td>
<td>RNA</td>
</tr>
<tr>
<td>RAS - superfamily</td>
<td>Generic binding protein</td>
</tr>
<tr>
<td>CHANNELS/TRANSPORTERS</td>
<td>Cell membrane glycoprotein</td>
</tr>
<tr>
<td>Generic channel</td>
<td></td>
</tr>
<tr>
<td>Ligand-gated ion channel</td>
<td></td>
</tr>
<tr>
<td>Voltage-gated ion channel</td>
<td></td>
</tr>
<tr>
<td>Transporter</td>
<td></td>
</tr>
<tr>
<td>RECEPTORS</td>
<td>G PROTEIN ADAPTOR/REGULATORS</td>
</tr>
<tr>
<td>Generic Receptor</td>
<td>G beta/gamma</td>
</tr>
<tr>
<td>GPCR</td>
<td>Regulators</td>
</tr>
<tr>
<td>Receptors with kinase activity</td>
<td>(GDI, GAP, GEI, etc.)</td>
</tr>
</tbody>
</table>

GROUPS OF OBJECTS:

- A complex or a group
- Proteins physically connected into a complex or related as a family
- Logical association
- Proteins linked by logical relations or physical interactions
- Custom association
- Group of collapsed objects chosen by user
Interactions between objects

**EFFECTS**
- Positive / activation
- Negative / inhibition
- Unspecified

**MECHANISMS**

**PHYSICAL INTERACTIONS**
- **B** Binding
  Physical interaction between molecules
- **C** Cleavage
  Cleavage of a protein at a specific site yielding distinctive peptide fragments. Proteolytic cleavage can be carried out by both enzymes and compounds
- **CM** Covalent modifications
  Covalent binding of a small chemical groups to protein amino acids or DNA/RNA nucleotides
- **P** Phosphorylation
  Protein activity is altered via addition of a phosphate group
- **P'** Dephosphorylation
  Protein activity is altered via removal of a phosphate group
- **T** Transformation
  Protein activity regulation by binding & hydrolysis of GTP
- **TN** Transport
  Transport of a protein or a compound between organelles
- **Z** Catalysis
  Catalysis of an enzymatic reaction
- **TR** Transcription regulation
  Physical binding of a transcription factor to target gene's promoter
- **RT** Co-regulation of transcription
  Influence on gene expression by direct binding with transcription machinery or by chromatin remodelling
- **R** Regulation
  Influence on the biochemical reaction by changing its composition
- **M** MicroRNA binding
  Regulation of gene expression by binding of microRNA to the target mRNA

**FUNCTIONAL INTERACTIONS**
- **IE** Influence on expression
  Indirect influence of chemical compound or protein on the amount of another protein
- **CN** Competition
  When two molecules compete for the interaction with the third molecule
- **T** Unspecified interactions
  Influence on activity of protein or RNA without determined mechanism
- **DE** Drug-Drug Interactions. Pharmacological effect
  Drugs change pharmacological effects of other drugs, for instance by competing for drug metabolisation enzymes or organic transporters
- **DE'** Drug-Drug Interactions. Toxic effect
  Drugs change toxic effects of other drugs, for instance by competing for drug metabolisation enzymes or organic transporters

**LOGICAL RELATIONS**
- **G** Group relation
  Object belongs to a generic group of related objects
- **S** Complex subunit
  Protein is a subunit of a protein complex
- **S'** Similarity relation
  Chemically similar compounds with high Tanimoto similarity score

**LINKS ON NETWORKS**
- **Incoming interaction**
  When the mouse is over object, yellow link indicates direction from object
- **Outgoing interaction**
  Cyan link indicates direction from object

**INTERACTIONS FROM CUSTOM LIST (MetaLink™)**
- Interaction is in the network
  Interaction is represented by a thin solid line and is highlighted in blue
- Interaction is in the base, but not in network
  Interaction is highlighted in yellow
- Interaction is in the network
  Interaction is highlighted in magenta

**CANONICAL PATHWAYS**
- Canonical pathway
  The link is highlighted in a thick open or magenta line

**LINKS ON MAPS**
- Disrupts in disease
- Weakens in disease
- Emerges in disease
- Enhances in disease
- Species specific interactions

**Objects on maps**

**LOCALIZATION**
- Mitochondria
- EPR
- Golgi
- Nucleus
- Lysosome
- Peroxisome
- Cytoplasm
- Extracellular

**OTHER MAP OBJECTS**
- Note
- Normal process
- Pathological process
- Blocks
- Normal process
- Pathological process
- Species
- Specific object
- Path start

For more information, visit clarivate.com/metacore