| 10 | Knockout ratio = 0.1 N = 100 | 10 - | Knockout ratio = 0.2 N = 100 | 20 | Knockout ratio = 0.3 N = 100 | 25 - | Knockout ratio = 0.4 N = 100 | L-alanine |
|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| -0.5 | 0.0 0.5 1.0 1.5 | -0.5 | 0.0 0.5 1.0 1.5 | -0.5 | 0.0 0.5 1.0 1.5 | -0.5 | 0.0 0.5 1.0 1.5 | |
| 10 | Knockout ratio = 0.1 N = 100 | 10 - | Knockout ratio = 0.2 N = 100 | 20 | Knockout ratio = 0.3 N = 100 | 25 | Knockout ratio = 0.4 N = 100 | L-arginine |
| -0.5 | 0.0 0.5 1.0 1.5 | -0.5 | 0.0 0.5 1.0 1.5 | -0.5 | 0.0 0.5 1.0 1.5 | -0.5 | 0.0 0.5 1.0 1.5 | |
| 10 | Knockout ratio = 0.1 N = 100 | 10 - | Knockout ratio = 0.2 N = 100 | 20 | Knockout ratio = 0.3 N = 100 | 25 - | Knockout ratio = 0.4 N = 100 | L-asparagine |
| -0.5 | 0.0 0.5 1.0 1.5 | -0.5 | 0.0 0.5 1.0 1.5 | -0.5 | 0.0 0.5 1.0 1.5 | -0.5 | 0.0 0.5 1.0 1.5 | |
| 10 | Knockout ratio = 0.1 N = 100 | 10 | Knockout ratio = 0.2 N = 100 | 20 | Knockout ratio = 0.3 N = 100 | 25 - | Knockout ratio = 0.4 N = 100 | L-aspartate |
| -0.5 | 0.0 0.5 1.0 1.5 | -0.5 | 0.0 0.5 1.0 1.5 | -0.5 | 0.0 0.5 1.0 1.5 | -0.5 | 0.0 0.5 1.0 1.5 | |
| 10 | Knockout ratio = 0.1 N = 100 | 10 - | Knockout ratio = 0.2 N = 100 | 20 | Knockout ratio = 0.3 N = 100 | 25 - | Knockout ratio = 0.4 N = 100 | L-cysteine |
| -0.5 | 0.0 0.5 1.0 1.5 | -0.5 | 0.0 0.5 1.0 1.5 | -0.5 | 0.0 0.5 1.0 1.5 | -0.5 | 0.0 0.5 1.0 1.5 | |
| 10 | Knockout ratio = 0.1 N = 100 | 10 | Knockout ratio = 0.2 N = 100 | 20 | Knockout ratio = 0.3 N = 100 | 25 | Knockout ratio = 0.4 N = 100 | L-glutamine |
| -0.5 | 0.0 0.5 1.0 1.5 | -0.5 | 0.0 0.5 1.0 1.5 | -0.5 | 0.0 0.5 1.0 1.5 | -0.5 | 0.0 0.5 1.0 1.5 | |
| 10 | Knockout ratio = 0.1 N = 100 | 10 - | Knockout ratio = 0.2 N = 100 | 20 | Knockout ratio = 0.3 N = 100 | 25 | Knockout ratio = 0.4 N = 100 | L-glycine |
| -0.5 | 0.0 0.5 1.0 1.5 | -0.5 | 0.0 0.5 1.0 1.5 | -0.5 | 0.0 0.5 1.0 1.5 | -0.5 | 0.0 0.5 1.0 1.5 | |
| 10 | Knockout ratio = 0.1 N = 100 | 10 | Knockout ratio = 0.2 N = 100 | 20 | Knockout ratio = 0.3 N = 100 | 25 | Knockout ratio = 0.4 N = 100 | L-histidine |
| -0.5 | 0.0 0.5 1.0 1.5 | -0.5 | 0.0 0.5 1.0 1.5 | -0.5 | 0.0 0.5 1.0 1.5 | -0.5 | 0.0 0.5 1.0 1.5 | |
| 10 | Knockout ratio = 0.1 N = 100 | 10 - | Knockout ratio = 0.2 N = 100 | 20 | Knockout ratio = 0.3 N = 100 | 25 | Knockout ratio = 0.4 N = 100 | L-isoleucine |
| -0.5 | 0.0 0.5 1.0 1.5 | -0.5 | 0.0 0.5 1.0 1.5 | -0.5 | 0.0 0.5 1.0 1.5 | -0.5 | 0.0 0.5 1.0 1.5 | |
| 10 | Knockout ratio = 0.1 N = 100 | 10 - | Knockout ratio = 0.2 N = 100 | 20 | Knockout ratio = 0.3 N = 100 | 25 - | Knockout ratio = 0.4 N = 100 | L-leucine |
| -0.5 | 0.0 0.5 1.0 1.5 | -0.5 | 0.0 0.5 1.0 1.5 | -0.5 | 0.0 0.5 1.0 1.5 | -0.5 | 0.0 0.5 1.0 1.5 | |
| | | | | | | | | |
| 10 | Knockout ratio = 0.1 N = 100 | 10 | Knockout ratio = 0.2 N = 100 | 20 | Knockout ratio = 0.3 N = 100 | 25 | Knockout ratio = 0.4 N = 100 | L-lysine |
| 10 0 -0.5 | Nockout ratio = 0.1 N = 100 0.0 0.5 1.0 1.5 | 10 0 -0.5 | 0.0 0.5 1.0 1.5 | 20 0 -0.5 | Knockout ratio = 0.3 <i>N</i> = 100 0.0 0.5 1.0 1.5 | 25 0 -0.5 | Knockout ratio = 0.4 N = 100 0.0 0.5 1.0 1.5 | L-lysine |
| 0 | <u></u> | 0 | | 0 | | _ ا | | · |
| 0 -0.5 | 0.0 0.5 1.0 1.5 | 0 -0.5 | 0.0 0.5 1.0 1.5 | 0 -0.5 | 0.0 0.5 1.0 1.5 | 0 -0.5 | 0.0 0.5 1.0 1.5 | L-lysine L-methionine |
| 0 -0.5 | 0.0 0.5 1.0 1.5 Knockout ratio = 0.1 <i>N</i> = 100 | 0 -0.5 | 0.0 0.5 1.0 1.5 Knockout ratio = 0.2 N = 100 | 0 -0.5 | 0.0 0.5 1.0 1.5 Knockout ratio = 0.3 N = 100 | 0 -0.5 25 0 | 0.0 0.5 1.0 1.5 Knockout ratio = 0.4 N = 100 | L-methionine |
| 0 -0.5 10 0 -0.5 | 0.0 0.5 1.0 1.5 Knockout ratio = 0.1 N = 100 0.0 0.5 1.0 1.5 | 0 -0.5 10 -0.5 | 0.0 0.5 1.0 1.5 Repockout ratio = 0.2 N = 100 0.0 0.5 1.0 1.5 | 0 -0.5 20 -0.5 | 0.0 0.5 1.0 1.5 Knockout ratio = 0.3 <i>N</i> = 100 0.0 0.5 1.0 1.5 | 0 -0.5 25 -0.5 | 0.0 0.5 1.0 1.5 Knockout ratio = 0.4 N = 100 0.0 0.5 1.0 1.5 | · |
| 0 -0.5 10 0 -0.5 | 0.0 0.5 1.0 1.5 Knockout ratio = 0.1 N = 100 0.0 0.5 1.0 1.5 Knockout ratio = 0.1 N = 100 | 0 -0.5 10 -0.5 10 -0.5 | 0.0 0.5 1.0 1.5 Knockout ratio = 0.2 N = 100 0.0 0.5 1.0 1.5 Knockout ratio = 0.2 N = 100 | 0 -0.5 20 -0.5 20 -0.5 | 0.0 0.5 1.0 1.5 Knockout ratio = 0.3 N = 100 0.0 0.5 1.0 1.5 Knockout ratio = 0.3 N = 100 | 0 -0.5 25 - 0 -0.5 25 - 0 -0.5 | 0.0 0.5 1.0 1.5 Knockout ratio = 0.4 N = 100 0.0 0.5 1.0 1.5 Knockout ratio = 0.4 N = 100 | L-methionine L-phenylalanine |
| 0 -0.5 10 -0.5 10 -0.5 | 0.0 0.5 1.0 1.5 Knockout ratio = 0.1 N = 100 0.0 0.5 1.0 1.5 Knockout ratio = 0.1 N = 100 0.0 0.5 1.0 1.5 | 0 -0.5 10 -0.5 10 -0.5 10 -0.5 | 0.0 0.5 1.0 1.5 Knockout ratio = 0.2 N = 100 0.0 0.5 1.0 1.5 Knockout ratio = 0.2 N = 100 0.0 0.5 1.0 1.5 | 0 -0.5 20 -0.5 20 -0.5 | 0.0 0.5 1.0 1.5 Knockout ratio = 0.3 <i>N</i> = 100 0.0 0.5 1.0 1.5 Knockout ratio = 0.3 <i>N</i> = 100 0.0 0.5 1.0 1.5 | 0 -0.5 25 - 0 -0.5 25 - 0 -0.5 | 0.0 0.5 1.0 1.5 Knockout ratio = 0.4 N = 100 0.0 0.5 1.0 1.5 Knockout ratio = 0.4 N = 100 0.0 0.5 1.0 1.5 | L-methionine |
| 0 -0.5 10 -0.5 10 -0.5 10 -0.5 10 -0.5 | 0.0 0.5 1.0 1.5 Knockout ratio = 0.1 N = 100 0.0 0.5 1.0 1.5 Knockout ratio = 0.1 N = 100 0.0 0.5 1.0 1.5 Knockout ratio = 0.1 N = 100 | 0 -0.5 10 -0.5 10 -0.5 10 -0.5 10 -0.5 | 0.0 0.5 1.0 1.5 Knockout ratio = 0.2 N = 100 0.0 0.5 1.0 1.5 Knockout ratio = 0.2 N = 100 0.0 0.5 1.0 1.5 Knockout ratio = 0.2 N = 100 | 0 -0.5 20 -0.5 20 -0.5 20 -0.5 20 -0.5 | 0.0 0.5 1.0 1.5 Knockout ratio = 0.3 N = 100 0.0 0.5 1.0 1.5 Knockout ratio = 0.3 N = 100 0.0 0.5 1.0 1.5 Knockout ratio = 0.3 N = 100 | 0 -0.5 25 - 0 -0.5 25 - 0 -0.5 25 - 0 -0.5 | 0.0 0.5 1.0 1.5 Knockout ratio = 0.4 N = 100 0.0 0.5 1.0 1.5 Knockout ratio = 0.4 N = 100 0.0 0.5 1.0 1.5 Knockout ratio = 0.4 N = 100 | L-methionine L-phenylalanine L-proline |
| 0 -0.5 10 -0.5 10 -0.5 10 -0.5 | 0.0 0.5 1.0 1.5 Knockout ratio = 0.1 N = 100 0.0 0.5 1.0 1.5 Knockout ratio = 0.1 N = 100 0.0 0.5 1.0 1.5 Knockout ratio = 0.1 N = 100 0.0 0.5 1.0 1.5 | 0 | 0.0 0.5 1.0 1.5 Knockout ratio = 0.2 N = 100 0.0 0.5 1.0 1.5 Knockout ratio = 0.2 N = 100 0.0 0.5 1.0 1.5 Knockout ratio = 0.2 N = 100 0.0 0.5 1.0 1.5 | 0 -0.5 20 -0.5 20 -0.5 20 -0.5 20 -0.5 | 0.0 0.5 1.0 1.5 Knockout ratio = 0.3 N = 100 0.0 0.5 1.0 1.5 Knockout ratio = 0.3 N = 100 0.0 0.5 1.0 1.5 Knockout ratio = 0.3 N = 100 0.0 0.5 1.0 1.5 | 0 | 0.0 0.5 1.0 1.5 Knockout ratio = 0.4 N = 100 0.0 0.5 1.0 1.5 Kockout ratio = 0.4 N = 100 0.0 0.5 1.0 1.5 Knockout ratio = 0.4 N = 100 0.0 0.5 1.0 1.5 | L-methionine L-phenylalanine |
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