

SUPPLEMENTARY TABLE S4. RESULT FROM INGENUITY PATHWAY ANALYSIS WITH METABOLYST BASED ON KEGG

| <i>No</i> | <i>Pathway</i> | <i>Total</i> | <i>Expected</i> | <i>Hits</i> | <i>Raw p</i> | <i>Impact</i> |
|-----------|--|--------------|-----------------|-------------|--------------|---------------|
| 1. | Histidine metabolism | 15 | 0.14 | 2 | 0.0078 | 0.25 |
| 2. | Nicotinate and nicotinamide metabolism | 13 | 0.12 | 1 | 0.1145 | 0.24 |
| 2. | Phenylalanine metabolism | 9 | 0.08 | 1 | 0.0806 | 0.13 |
| 3. | Arginine and proline metabolism | 44 | 0.41 | 2 | 0.0603 | 0.06 |
| 4. | Tyrosine metabolism | 42 | 0.39 | 1 | 0.3278 | 0.03 |
| 5. | Tryptophan metabolism | 41 | 0.38 | 2 | 0.0531 | 0.00 |
| 6. | Lysine degradation | 20 | 0.19 | 1 | 0.1711 | 0.00 |
| 7. | Aminoacyl-tRNA biosynthesis | 67 | 0.62 | 1 | 0.4724 | 0.00 |