



- 1: PHGDH; PSAT1; VPS29 - PSPH
- 2: MAT2A - MAT2B - MAT1A; AHCY; CBS; CTH
- 3: SHMT1 - SHMT2
- 4: GPT - GPT2
- 5: PAH
- 6: ALDH18A1; PYCR1 - P5CR2
- 7: GLUD1 - GLUD2
- 8: GLUL
- 9: GLS1 - GLS2
- 10: GOT1
- 11: ASNS
- 12: ASRGL1 - AGA
- 13: ASS1
- Proteinogenic Amino Acids Degradation**

NEAAs  
Ser; Cys; Ala; Gly;  
Pro; Tyr; Glu; Gln;  
Asp; Asn; Arg

EAAAs  
Met; Phe; Leu;  
Ile; Val; Lys;  
Thr; His; Trp