



Article

The Genomic Fabrics of the Excretory System's Functional Pathways Are Remodeled in Clear Cell Renal Cell Carcinoma

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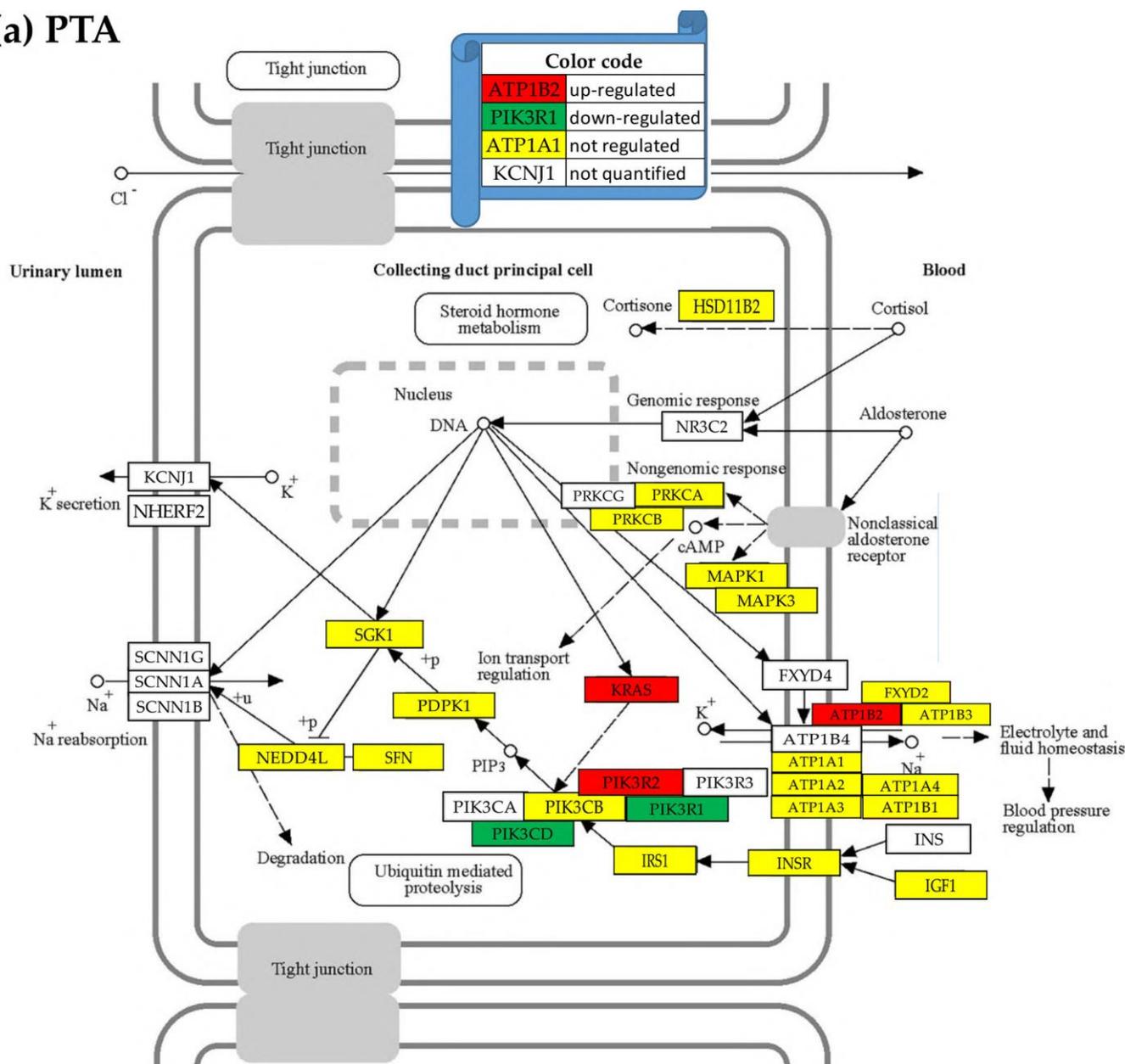
Supplementary Material

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Supplementary Figure S1: Regulated genes in the KEGG-constructed functional pathway hsa04960 Aldosterone-regulated sodium reabsorption. **(a) PTA nodule. (b) PTB nodule. (c) CWM nodule. Regulated genes:** *ATP1A1/A2/A3/A4* (ATPase, Na⁺/K⁺ transporting, alpha 1/2/3/4 polypeptide), *ATP1B2/B3* (ATPase, Na⁺/K⁺ transporting, beta 2/3 polypeptide), *FXYP3* (FXYP domain containing ion transport regulator 3), *HSD11B2* (hydroxysteroid (11-beta) dehydrogenase 2), *IRS1* (insulin receptor substrate 1), *KRAS* (Kirsten rat sarcoma viral oncogene homolog), *PIK3CD* (phosphatidylinositol-4,5-bisphosphate 3-kinase, catalytic subunit delta), *PIK3R1/2* (phosphoinositide-3-kinase, regulatory subunit 1 (alpha)/ 2 (beta)), *SFN* (stratifin).

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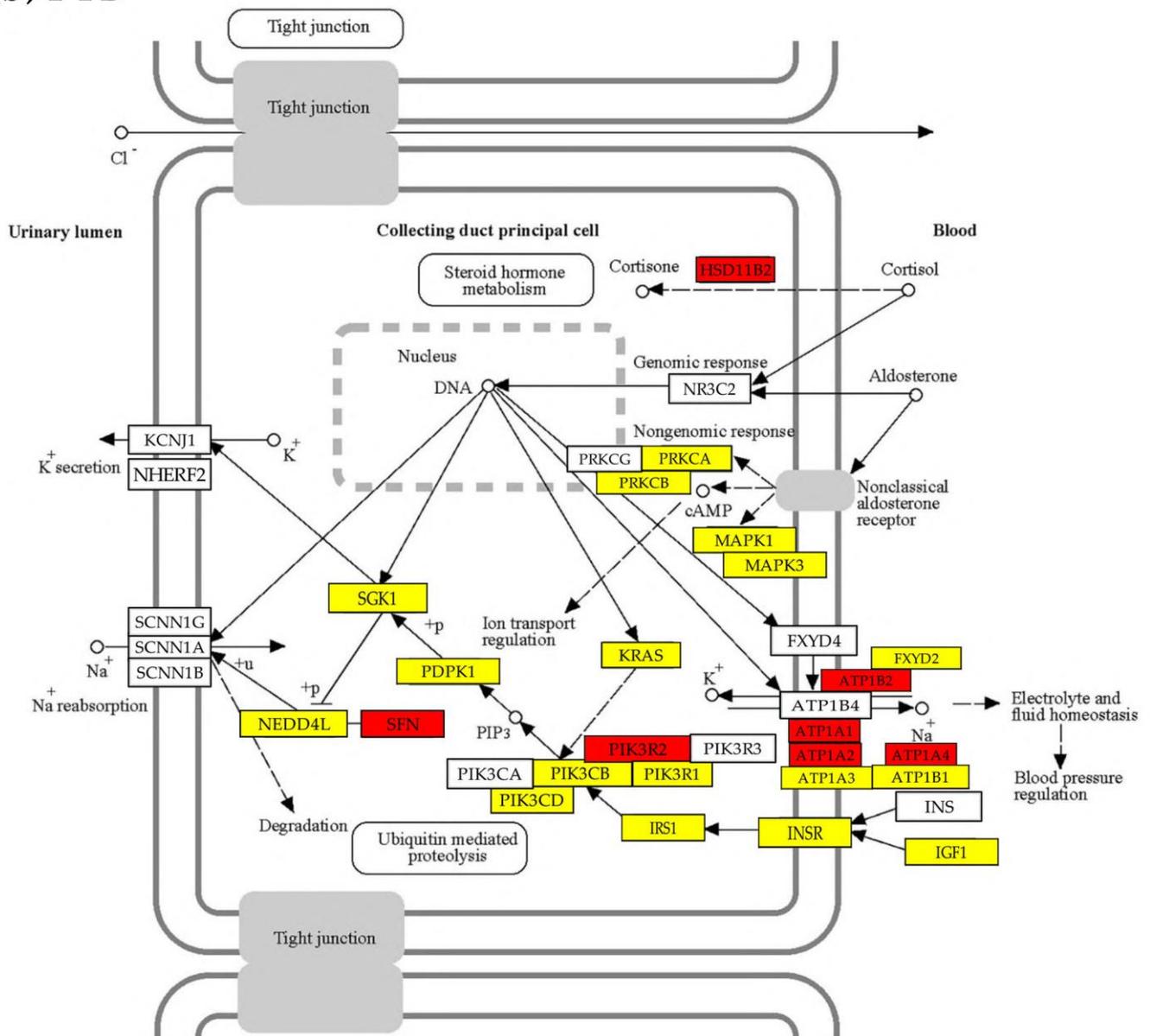
(a) PTA



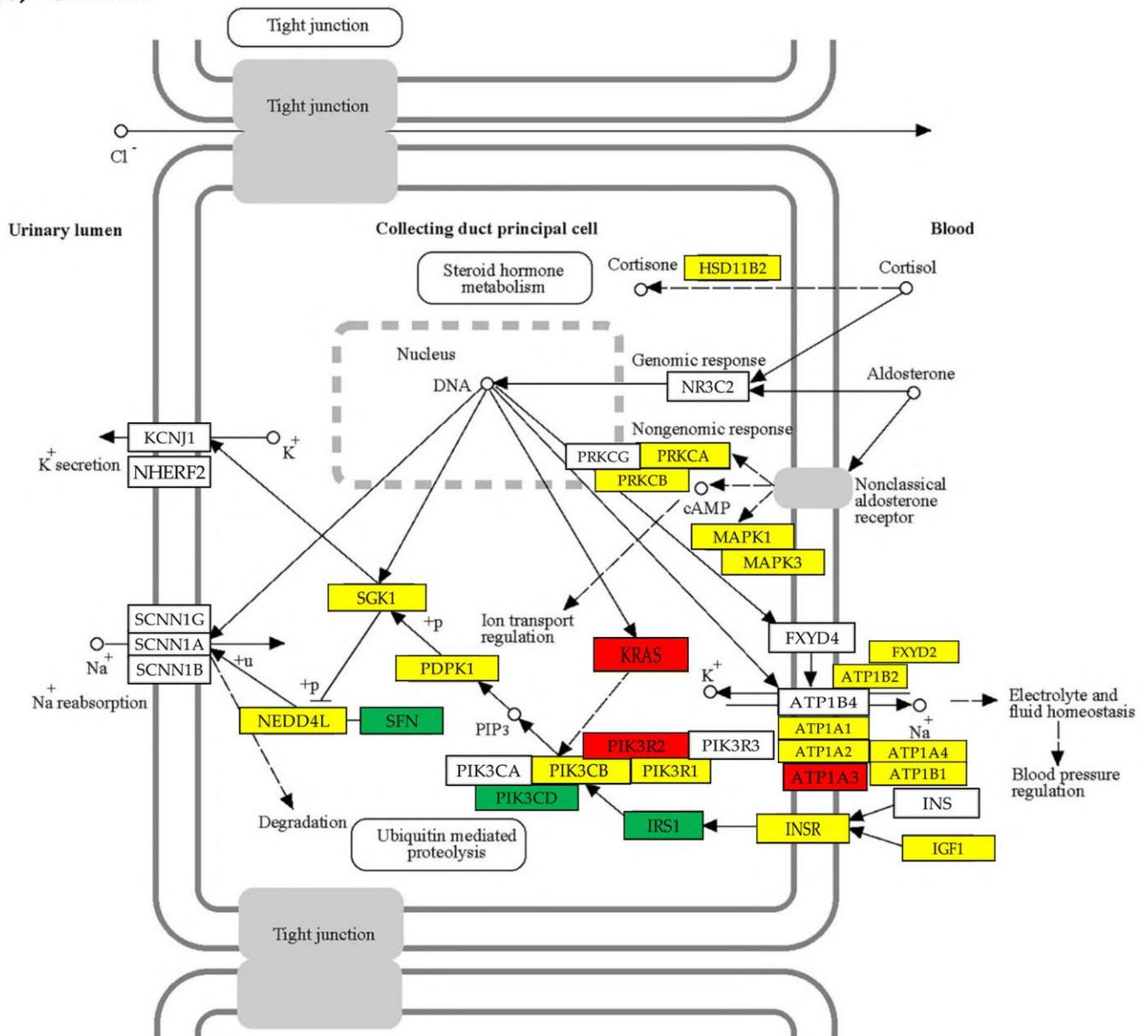
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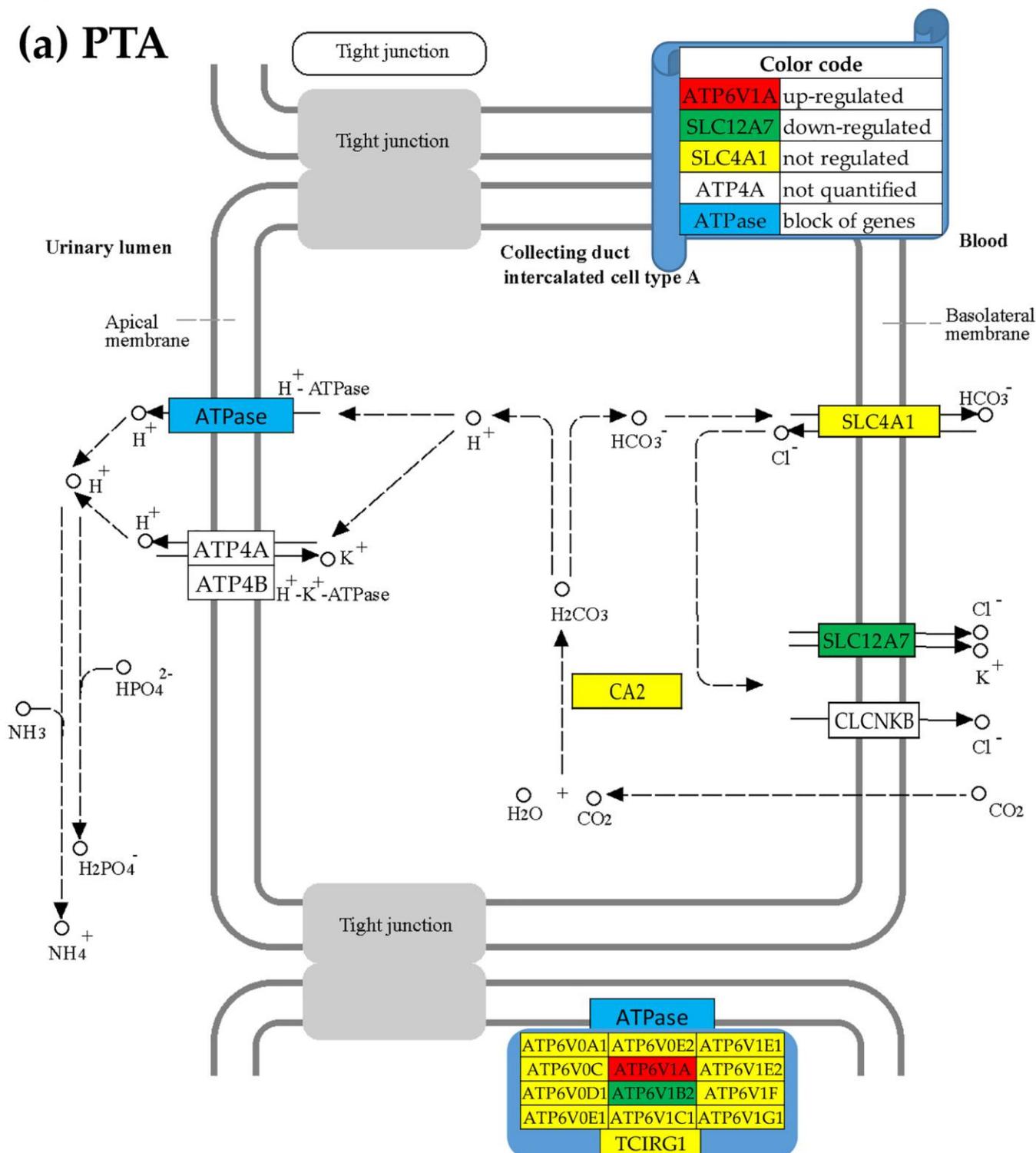
(b) PTB



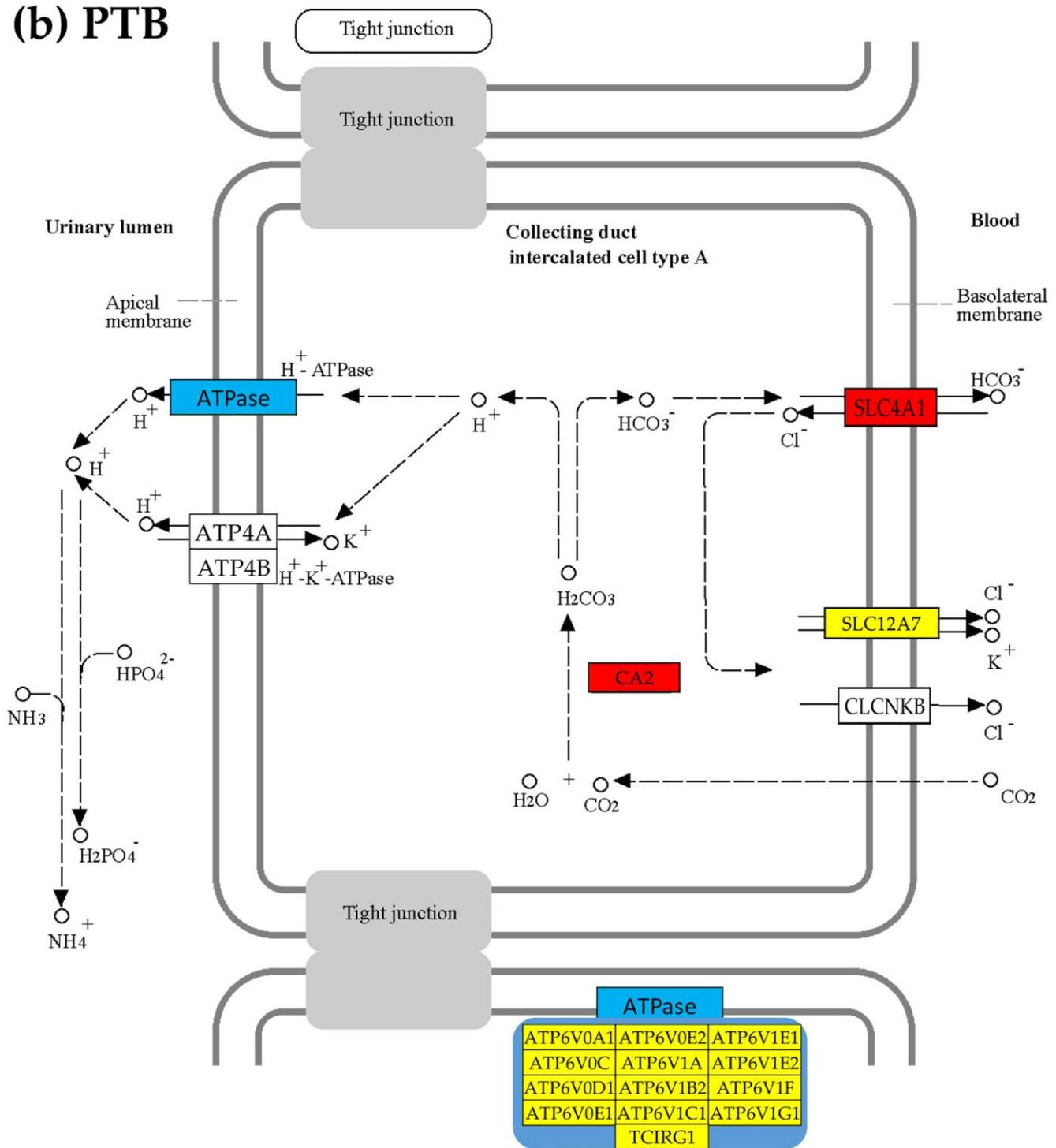
(c) CWM



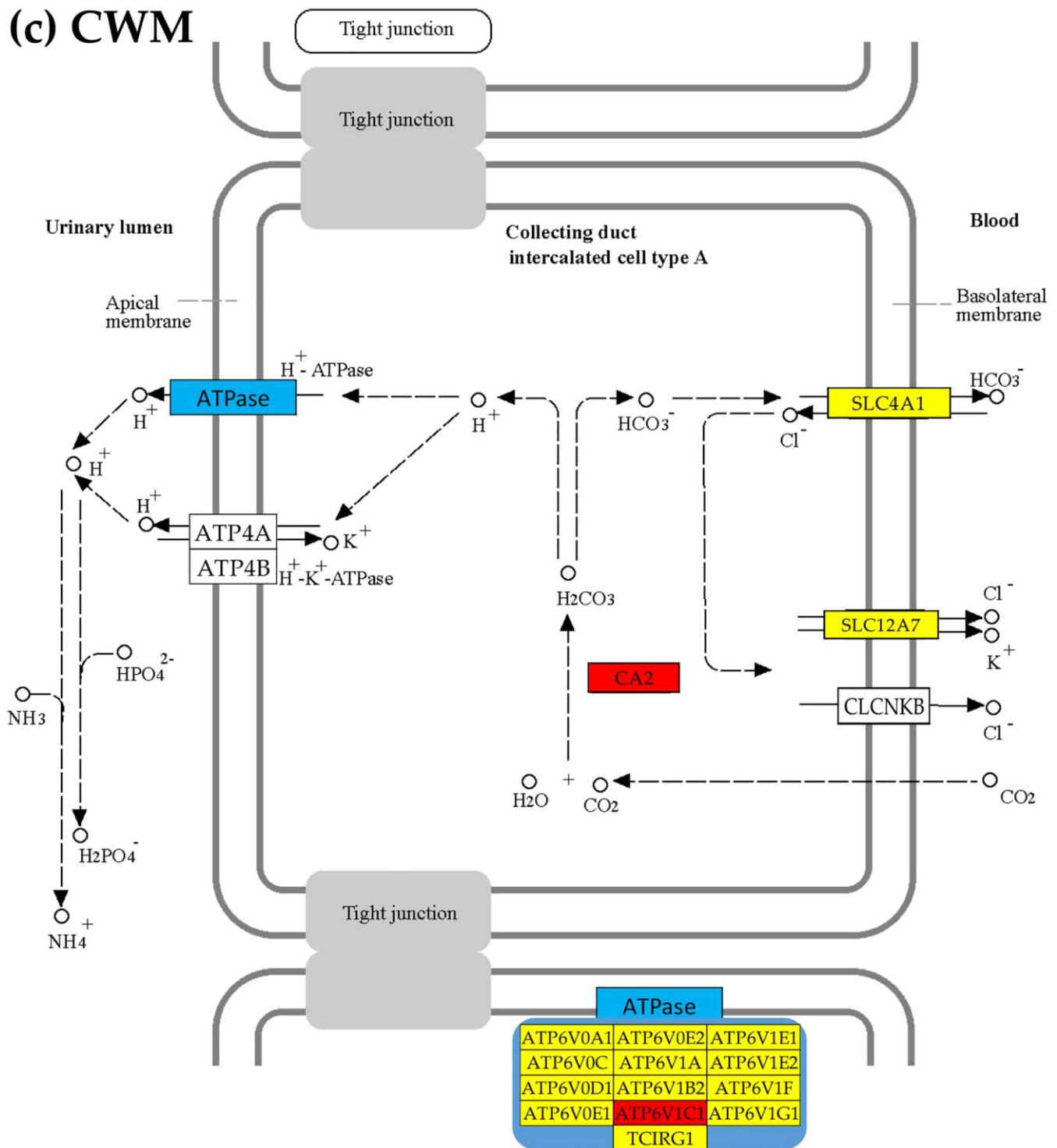
Supplementary Figure S2: Regulated genes in the KEGG-constructed functional pathway hsa04966 "Collecting duct acid secretion". (a) PTA nodule. (b) PTB nodule. (c) CWM nodule. **Regulated genes:** *ATP6V1A/B2/C1* (ATPase, H⁺ transporting, lysosomal 70kDa, V1 subunit A/B2/C1), *CA2* (carbonic anhydrase II), *SLC12A7* (solute carrier family 12 (potassium/chloride transporter), member 7), *SLC4A1* (solute carrier family 4 (anion exchanger), member 1 (Diego blood group)).



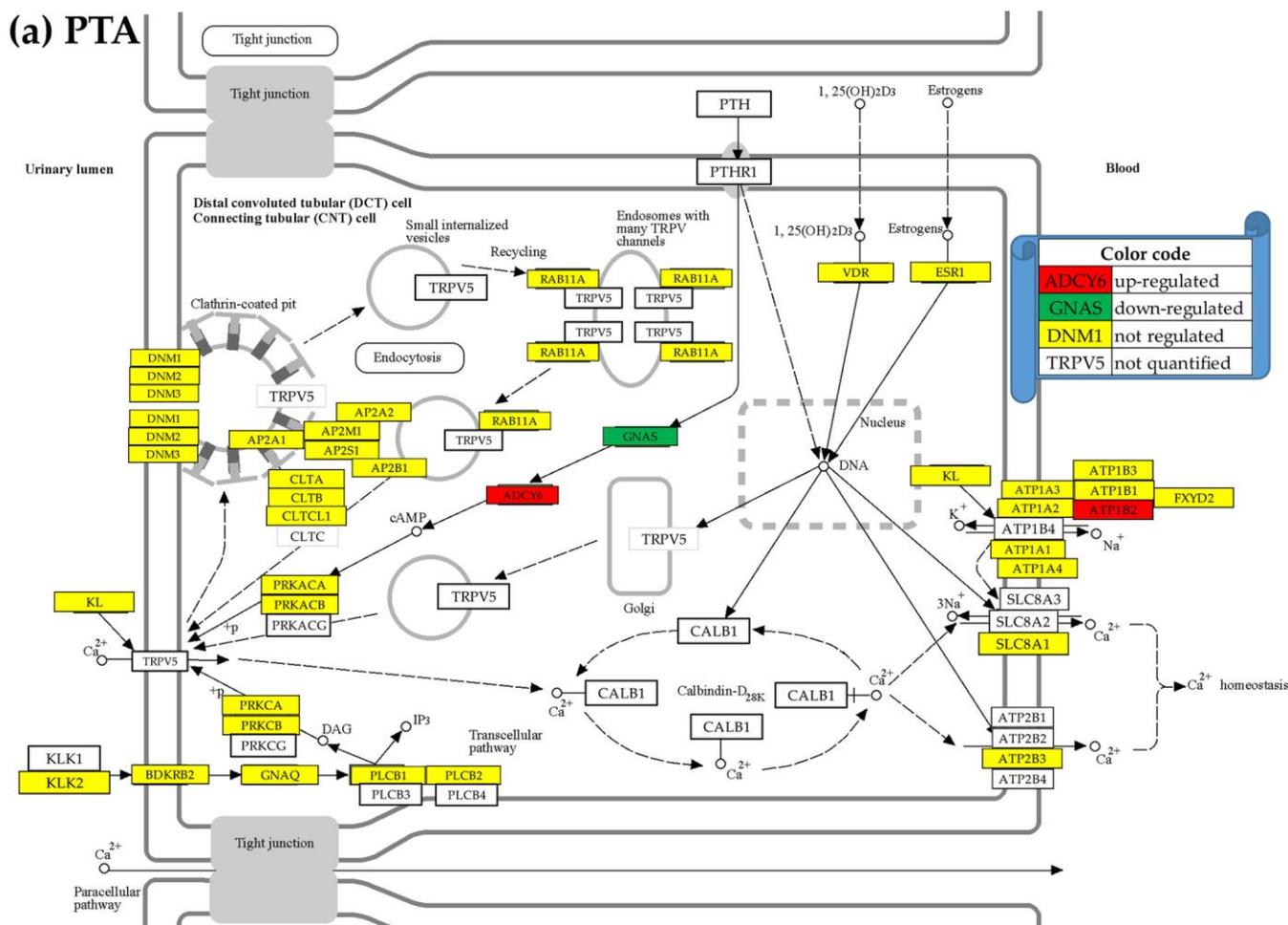
(b) PTB



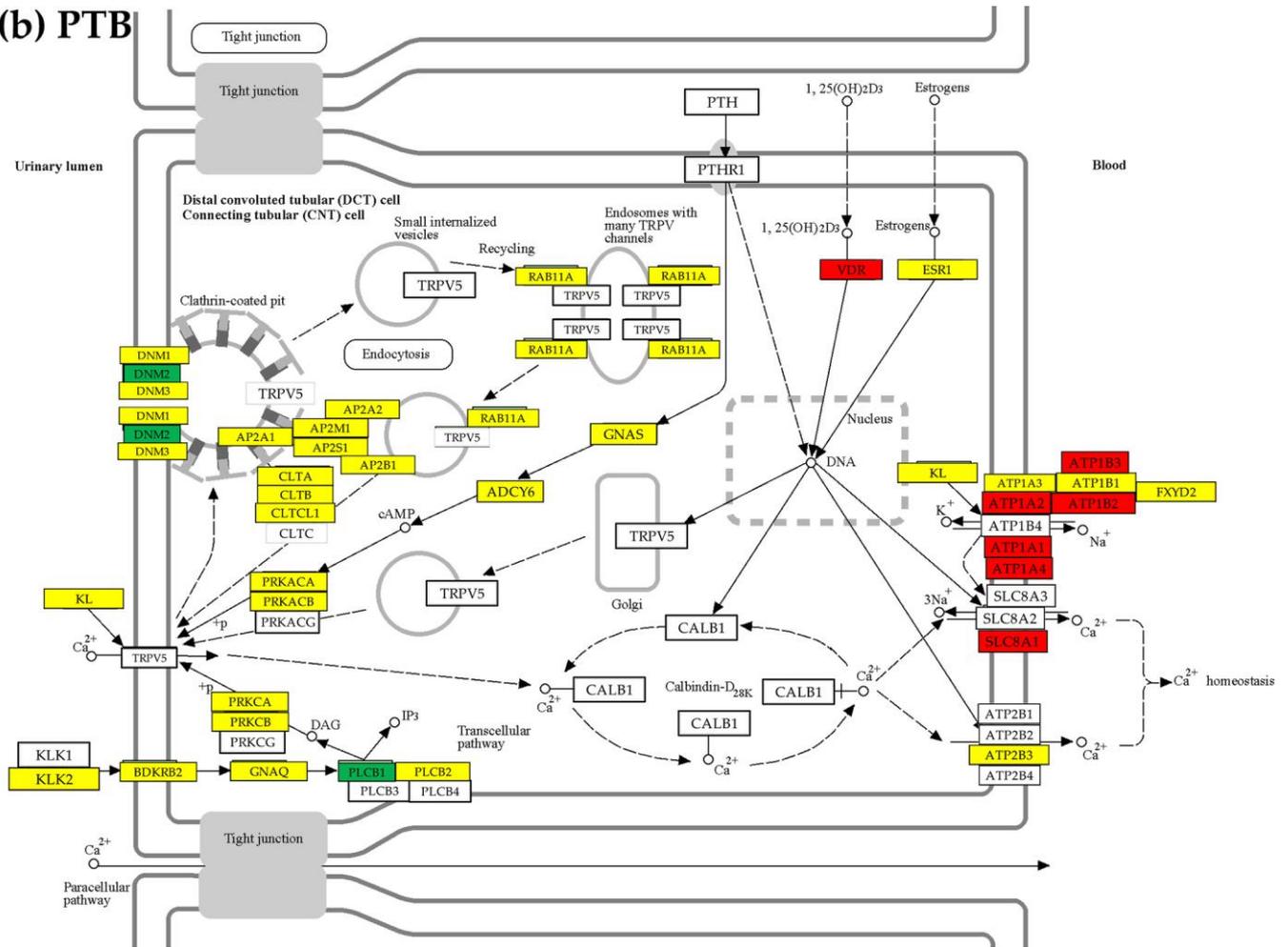
(c) CWM



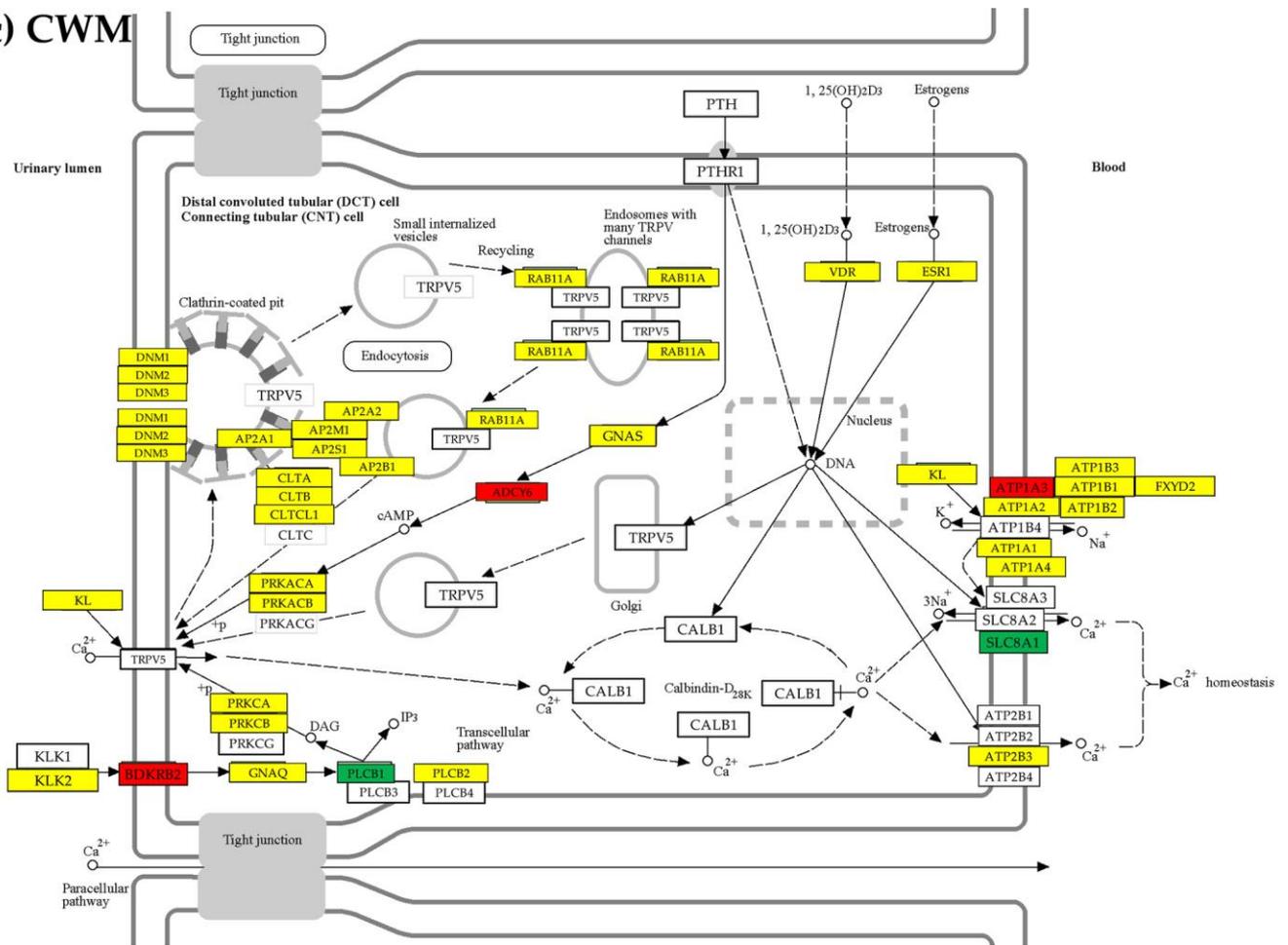
Supplementary Figure S3: Regulated genes in the KEGG-constructed functional pathway hsa04961 “Endocrine and other factor-regulated calcium reabsorption”. (a) PTA nodule. (b) PTB nodule. (c) CWM nodule. **Regulated genes:** *ADCY6* (adenylate cyclase 6), *ATP1A1/2/3/4* (ATPase, Na⁺/K⁺ transporting, alpha 1/2/3/4 polypeptide), *ATP1B2/3* (ATPase, Na⁺/K⁺ transporting, beta 2/3 polypeptide), *BDKRB2* (bradykinin receptor B2), *GNAS* (GNAS complex locus), *PLCB1* (phospholipase C, beta 1 (phosphoinositide-specific)), *SLC8A1* (solute carrier family 8 (sodium/calcium exchanger), member 1), *VDR* (vitamin D (1,25- dihydroxyvitamin D3) receptor).



(b) PTB



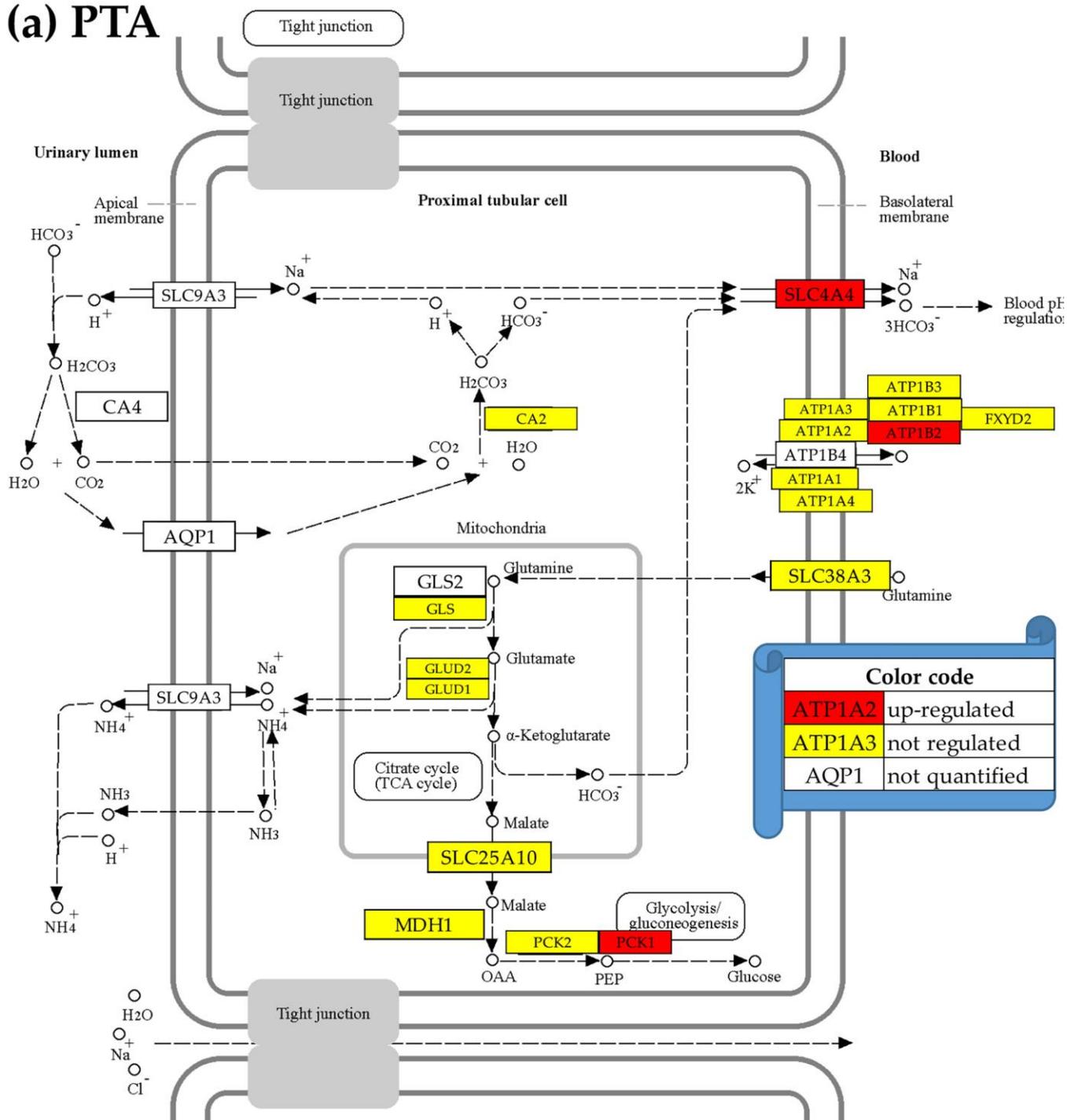
(c) CWM



Supplementary Figure S4: Regulated genes in the KEGG-constructed functional pathway hsa04964 "Proximal tubule bicarbonate reclamation in the three profiled cancer nodules". **(a) PTA nodule. (b) PTB nodule. (c) CWM nodule. Regulated genes:** *ATP1A1/2/3/4* (ATPase, Na⁺/K⁺ transporting, alpha 1/2/3/4 polypeptide), *ATP1B2/3* (ATPase, Na⁺/K⁺ transporting, beta 2/3 polypeptide), *CA2* (carbonic anhydrase II), *PCK1* (phosphoenolpyruvate carboxykinase 1 (soluble)), *SLC4A4* (solute carrier family 4 (sodium bicarbonate cotransporter), member 4).

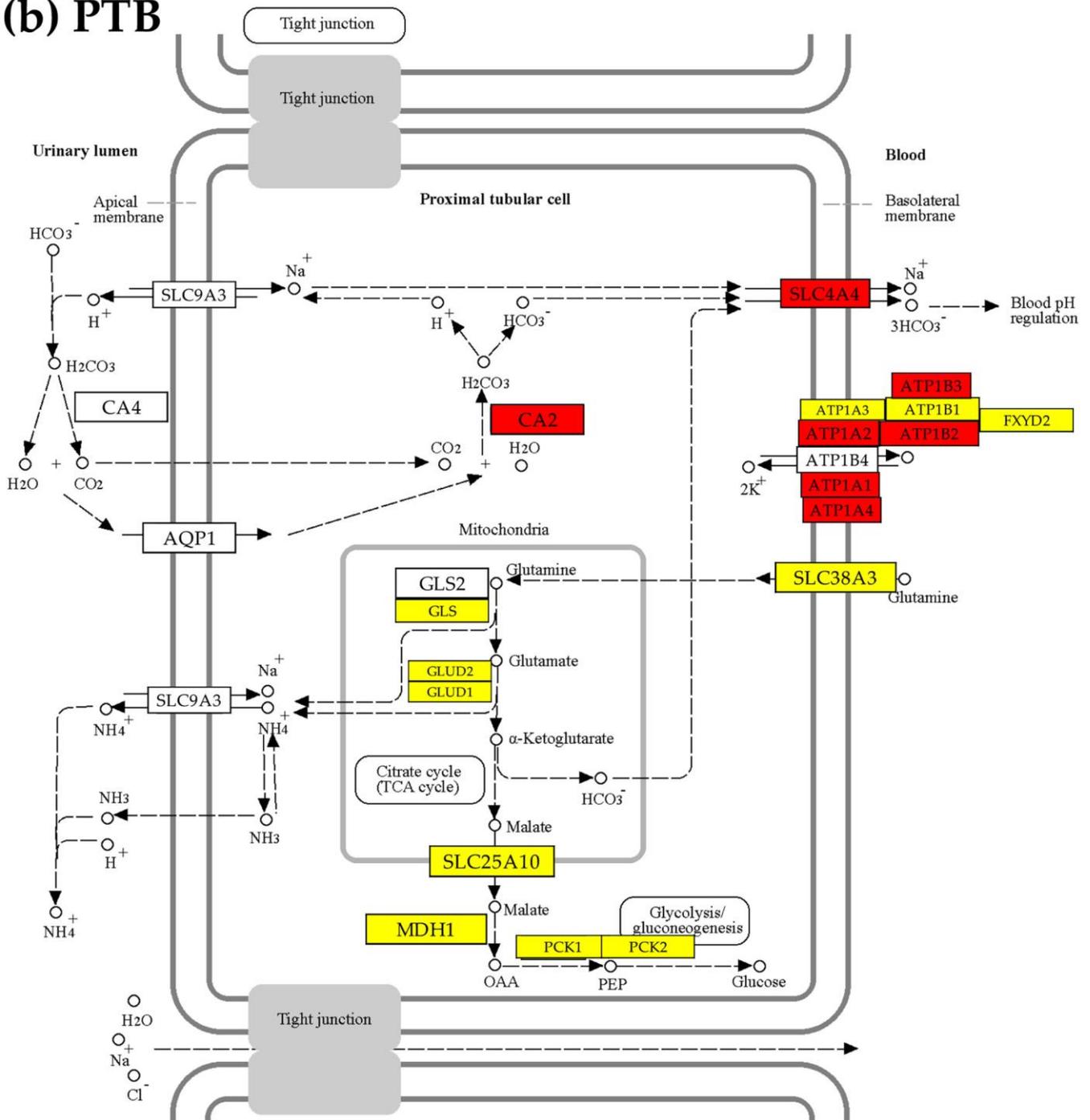
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(a) PTA

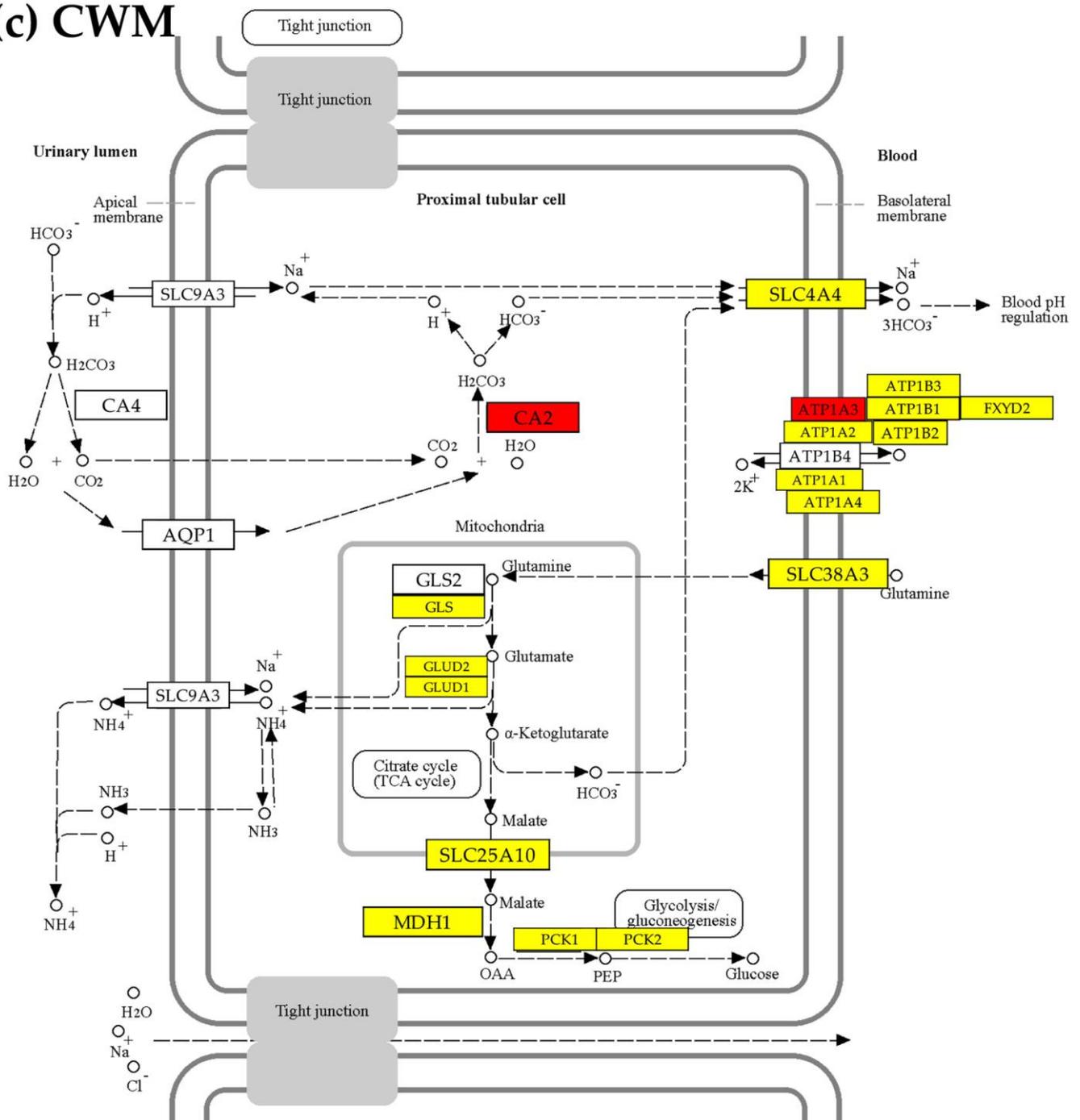


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(b) PTB



(c) CWM



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