

Protein-L-isoaspartate O-methyltransferase is required for *in vivo* control of oxidative damage in red blood cells

Angelo D'Alessandro,¹ Ariel Hay,² Monika Dzieciatkowska,¹ Benjamin C. Brown,¹ Evan J Morrison,¹ Kirk C. Hansen¹ and James C Zimring²

¹Department of Biochemistry and Molecular Genetics, University of Colorado Denver – Anschutz Medical Campus, Aurora, CO and ²University of Virginia, Charlottesville, VA, USA

©2021 Ferrata Storti Foundation. This is an open-access paper. doi:10.3324/haematol.2020.266676

Received: July 13, 2020.

Accepted: September 2, 2020.

Pre-published: September 10, 2020.

Correspondence: ANGELO D'ALESSANDRO - angelo.dalessandro@ucdenver.edu

JAMES C ZIMRING - jcz2k@virginia.edu

Supplementary Figure for

Protein-L-isoaspartate O-methyltransferase 1 is required for in vivo control of oxidative damage in red blood cells

Angelo D'Alessandro,^{1*} Ariel Hay,² Monika Dzieciatkowska,¹ Benjamin C. Brown,¹ Evan J Morrison,¹ Kirk C. Hansen,¹ James C Zimring,^{2,*}

- 1) Department of Biochemistry and Molecular Genetics, University of Colorado Denver – Anschutz Medical Campus, Aurora, CO, USA;
- 2) University of Virginia, Charlottesville, VA, USA

***Corresponding authors:**

Angelo D'Alessandro, PhD
Department of Biochemistry and Molecular Genetics
University of Colorado Anschutz Medical Campus
12801 East 17th Ave., Aurora, CO 80045
Phone # 303-724-0096
E-mail: angelo.dalessandro@ucdenver.edu

James C Zimring, MD PhD
Department of Pathology
University of Virginia, Charlottesville, VA, USA
345 Crispell Drive (MR6), Room 3523, Charlottesville, VA 22903
Phone: #434-924-2427
Email: jcz2k@virginia.edu

SUPPLEMENTARY FIGURE 1..... 2

SUPPLEMENTARY TABLE 1XLSX

SHEET 1: A. METABOLOMICS OF PCMT1 HETEROZYGOUS AND WT RBCS

SHEET 1: B. PROTEOMICS REPORT OF METHYLATED RESIDUES IN WT MICE AND PCMT1 HETEROZYGOUS

SHEET 2: METABOLOMICS OF PCMT1 KO, HETEROZYGOUS AND WT RBCS

SHEET 3: PROTEOMICS OF PCMT1 KO, HETEROZYGOUS AND WT RBCS

SHEET 4: METABOLOMICS OF ORGANS FROM WT AND PCMT1 KO MICE

SHEET 4: A. BRAIN

SHEET 4: B. HEART

SHEET 4: C. KIDNEY

SHEET 4: D. LIVER

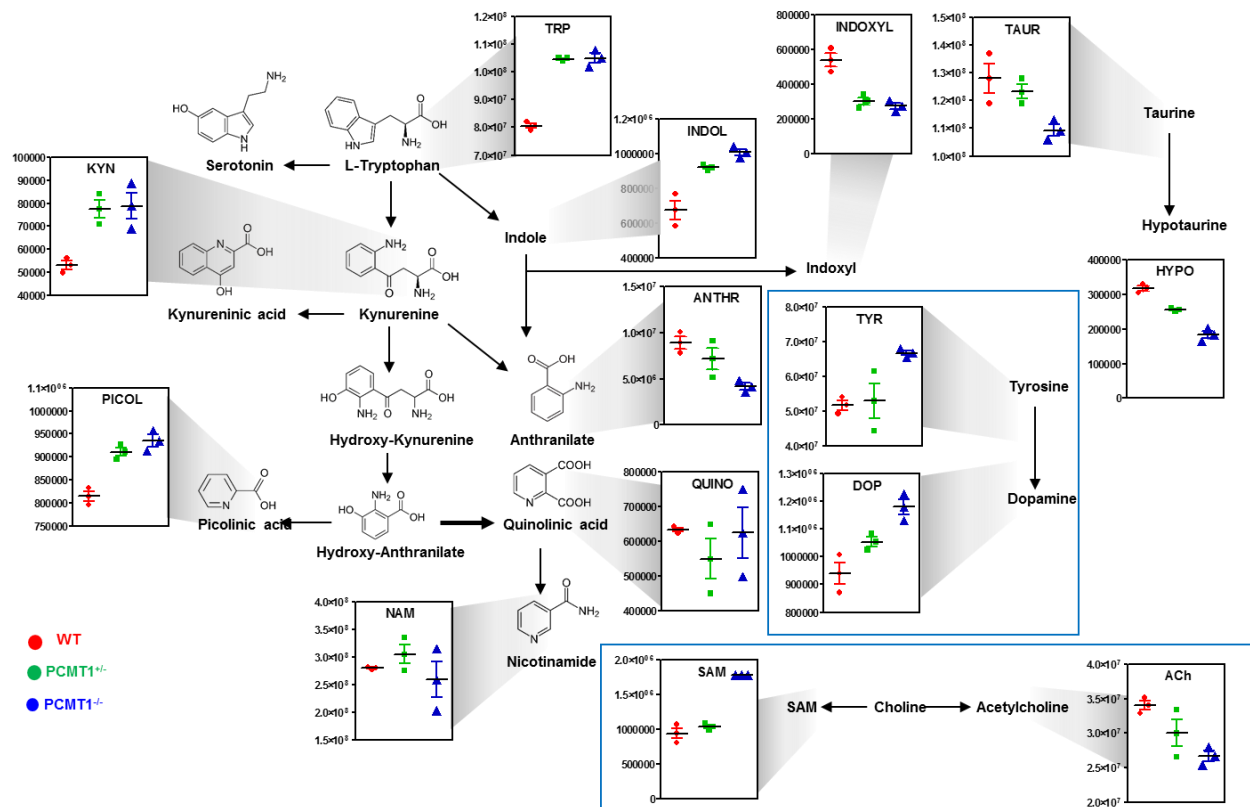
SHEET 4: E. SPLEEN

SHEET 5: METABOLOMICS OF RBCS FROM WT AND PCMT1 KO MICE TREATED WITH DIAMIDE

SHEET 6: METABOLOMICS OF RBCS FROM BONE MARROW TRANSPLANT WT AND PCMT1 KO MICE

SHEET 7: METABOLOMICS OF PHZ-TREATED BMT MOUSE RBCS

SHEET 8: METABOLOMICS OF FRESH AND STORED MOUSE RBCS FROM WT AND PCMT1 KO MICE



Supplementary Figure 1 – Tryptophan metabolism in PCMT1^{-/-} knockout mouse RBCs