Analysis of human PiT1 E70K and PiT2 H502A for Na\textsuperscript{32}P\textsubscript{i} uptake and gamma-retroviral receptor function.

A-B \textsuperscript{32}P\textsubscript{i} uptake in individual oocytes was measured and data are the mean value of (n) numbers of oocytes ±SEM. PiT1 n=11 (A) and n=19 (B), PiT1 E70K n=10 (A), PiT2 n=11 (B), PiT2 H502A n=11 (B), H\textsubscript{2}O n=12 (A) and n=9 (B). The $P$ values for comparison to PiT1 are as follows: PiT1 E70K $P$=0.002, H\textsubscript{2}O $P$=0.01. For comparison to H\textsubscript{2}O: PiT1 E70K $P$=0.02. The $P$ values for comparison to PiT2 are as follows: PiT2 H502A $P$=0.002, H\textsubscript{2}O $P$=0.002. For comparison to H\textsubscript{2}O: PiT2 H502A $P$=0.1. The average \textsuperscript{32}P\textsubscript{i} uptakes were 119.86 ±28.16 pmol/oocyte-hour (A) and 46.73 ±0.58 pmol/oocyte-hour (B) for PiT1, 2.78 ±0.74 pmol/oocyte-hour for PiT1 E70K (A), 30.99 ±8.67 pmol/oocyte-hour for H\textsubscript{2}O injected (A), 44.96 ±0.46 pmol/oocyte-hour for PiT2 (B), 2.36 ±0.56 pmol/oocyte-hour for PiT2 H502A (B), and 3.24 ±0.17 pmol/oocyte-hour for H\textsubscript{2}O injected (B).

C The average numbers (±SEM) of blue (infected) cells per dish from three dishes receiving independent precipitates are as follows: 10A1 MLV: 884 ±146 (PiT1), 767 ±42 (PiT1 E70K), and 0 (Mock). The $P$-value relative to PiT1 is as follows: PiT1 E70K $P$=0.48.

D-E The average numbers (±SEM) of blue (infected) cells per dish from three dishes receiving independent precipitates are as follows: for 10A1 MLV: 63,940 ±8076 (PiT2), 50,408 ±4005 (PiT2 H502A), and 0 (Mock) and for A-MLV: 13,624 ±862 (PiT2), 12,235 ±1189 (PiT2 H502A) and 0 (Mock). The $P$-values relative to PiT2 are as follows: PiT2 H502A $P$=0.23 (D) and $P$=0.48 (E).

Investigation of the loop sequence length in PiT family members.

B Data are the mean value of (n) numbers of loops counted ±SEM. The average loop lengths are as follows, L1: 17.1 ±1.5 amino acids (n=9), L2: 19.8 ±0.1 amino acids (n=9), L3: 38.6 ±1.7 amino acids (n=9), L4: 13.3 ±1.2 amino acids (n=7), L5: 9.6 ±1.7 amino acids (n=7), L6: 131.7 ±32.8
amino acids (n=9), L7: 42.9 ±14.7 amino acids (n=9), L8: 24.6 ±2.5 amino acids (n=9), L9: 26.4 ±5.1 amino acids (n=9).

Figure 6

**Na\(^{32}\)P\(_i\) uptake mediated by human PiT2 and truncation mutants analyzed in *X. laevis* oocytes.**

Data are the mean value of (n) numbers of oocytes ±SEM. The *P* values for comparison to PiT2 are as follows: PiT2\(\Delta\)L183-V483 *P*=0.003 (A) and *P*=0.004 (B), PiT2\(\Delta\)R254-V483 *P*=0.119 (A) and *P*=0.553 (B), H\(_2\)O *P*=0.002 (A) and *P*=0.002 (B). For comparison to H\(_2\)O: PiT2\(\Delta\)L183-V483 *P*=0.011 (A) and *P*=0.008 (B), PiT2\(\Delta\)R254-V483 *P*<0.001 (A) and *P*<0.001 (B). The average \(^{32}\)Pi uptakes were 79.61 ±17.74 pmol/oocyte-hour (A) and 44.96 ±0.46 pmol/oocyte-hour (B) for PiT2, 3.93 ±0.44 pmol/oocyte-hour (A) and 8.33 ±2.85 pmol/oocyte-hour (B) for PiT2\(\Delta\)L183-V483, 47.38 ±6.59 pmol/oocyte-hour (A) and 38.74 ±3.73 pmol/oocyte-hour (B) for PiT2\(\Delta\)R254-V483, and 2.56 ±0.24 pmol/oocyte-hour (A) and 3.24 ±0.17 pmol/oocyte-hour (B) for H\(_2\)O injected oocytes, respectively.