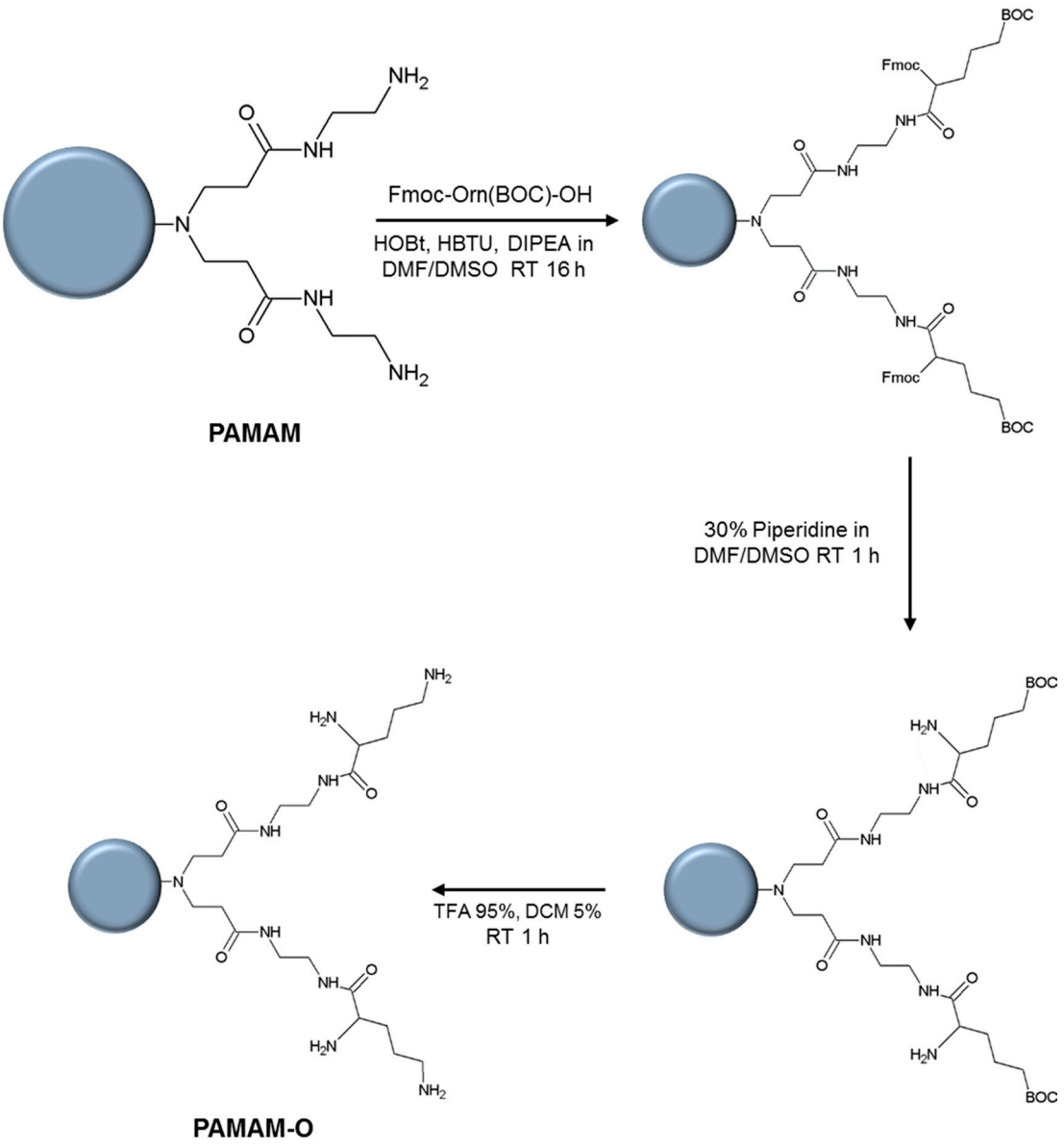
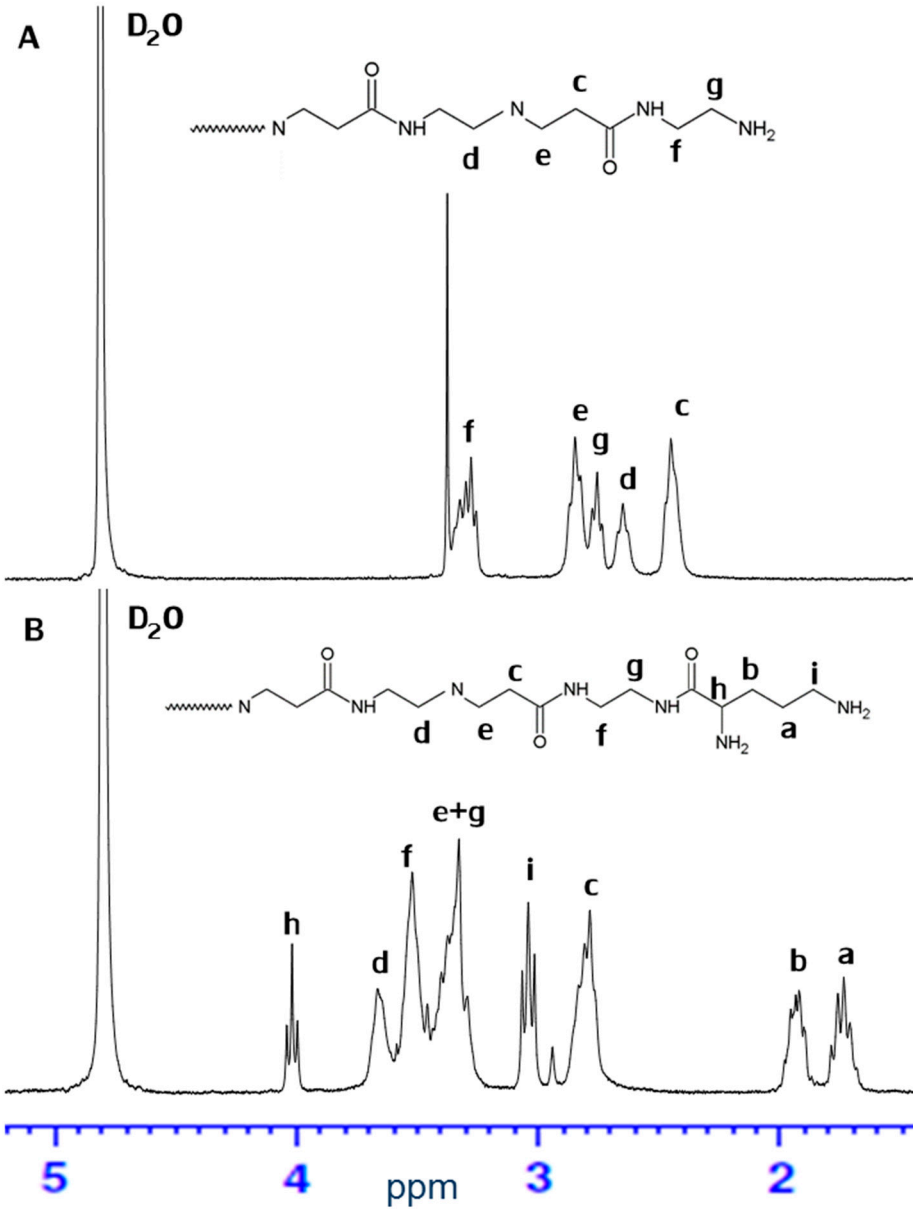
# Supporting information

## Supplementary Figures and Figure Legends.

**Supplementary Figure S1. Overall synthesis scheme of PAMAM-O.**



**Supplementary Figure S2. $^{1}$H-nuclear magnetic resonance (NMR) spectroscopy of the PAMAM-O dendrimer.** (A) PAMAM and (B) PAMAM-O.




The $^{1}$H NMR (300 MHz, $D_2O$) data of the polymers are as follows. (A) **PAMAM:** δ (ppm) 2.44 (-$NCH_2C\boldsymbol{H}_2CO$- of PAMAM unit), 2.63 (-$CONHCH_2C\boldsymbol{H}_2N$- of PAMAM unit), 2.83 (-$NC\boldsymbol{H}_2CH_2CO$- of PAMAM unit), and 3.35 (-$NC\boldsymbol{H}_2CH_2CO$ of PAMAM unit). (B) **PAMAM-O:** δ (ppm) 1.73 (-$HCCH_2C\boldsymbol{H}_2CH_2NH$- of ornithine unit), 1.98 (-$HCC\boldsymbol{H}_2CH_2CH_2NH$- of ornithine

unit), 2.81 (-$NCH_2C\boldsymbol{H}_2CO$- of PAMAM unit), 3.06 (-$HCCH_2CH_2C\boldsymbol{H}_2NH$- of ornithine unit), 3.31 (-$NC\boldsymbol{H}_2CH_2CO$- and -$CONHCH_2C\boldsymbol{H}_2$- of PAMAM unit), 3.54 (-$CONHC\boldsymbol{H}_2CH_2$- of PAMAM unit), 3.68 (-$CONHCH_2C\boldsymbol{H}_2N$- of PAMAM unit), and 4.03 (-$\boldsymbol{H}CCH_2CH_2CH_2NH$- of ornithine unit). The conjugation yield (over 95%) was calculated from the result of $^1H$ NMR.