Supporting Information

Intrinsic Fluorescence Hydrogels for ON/OFF Screening of Antidiabetic Drugs: Assessing α-Glucosidase Inhibition by Acarbose

F. Javier Patiño[a,b‡], Josué M. Galindo[a,b‡], Alicia Jiménez[a,b], Yolanda Alacid[c], C. Reyes Mateo[c], Ana Mª Sánchez-Migallón[a,b], Ester Vázquez[a,b], Sonia Merino[a,b]*, M. Antonia Herrero[a,b]*.

[a.] *Departamento de Química Inorgánica, Orgánica y Bioquímica, Facultad de Ciencias y Tecnologías Químicas, Universidad de Castilla-La Mancha, 13071 Ciudad Real, Spain. Email: Mariaantonia.herrero@uclm.es; sonia.merino@uclm.es*

[b.] *Instituto Regional de Investigación Científica Aplicada (IRICA), UCLM, 13071 Ciudad Real, Spain.*

[c.] *Instituto de Investigación, Desarrollo e Innovación en Biotecnología Sanitaria de Elche (IDiBE), Universidad Miguel Hernández de Elche (UMH), 03202 Elche, Spain.*

‡ F. Javier Patiño and Josué M. Galindo equally contributed to this work.

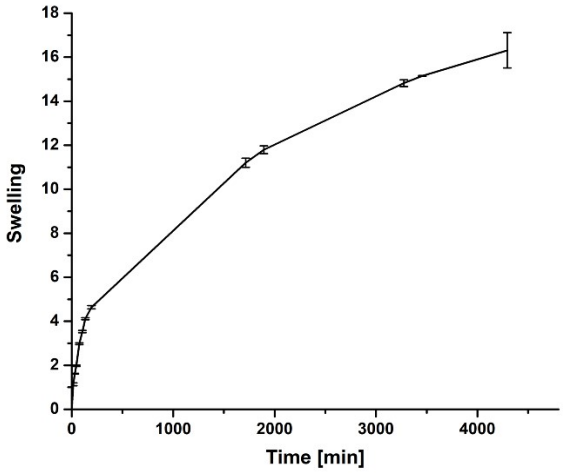

Fig. S1. Swelling of ChDAT hydrogel.

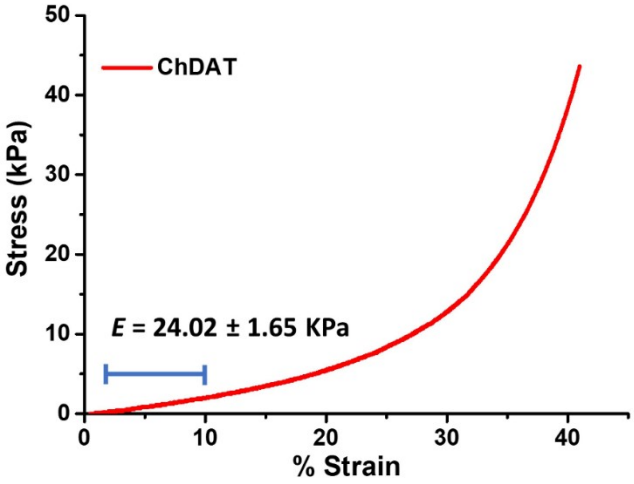

Fig. S2. Stress-strain curve and Young's Modulus of ChDAT hydrogel.

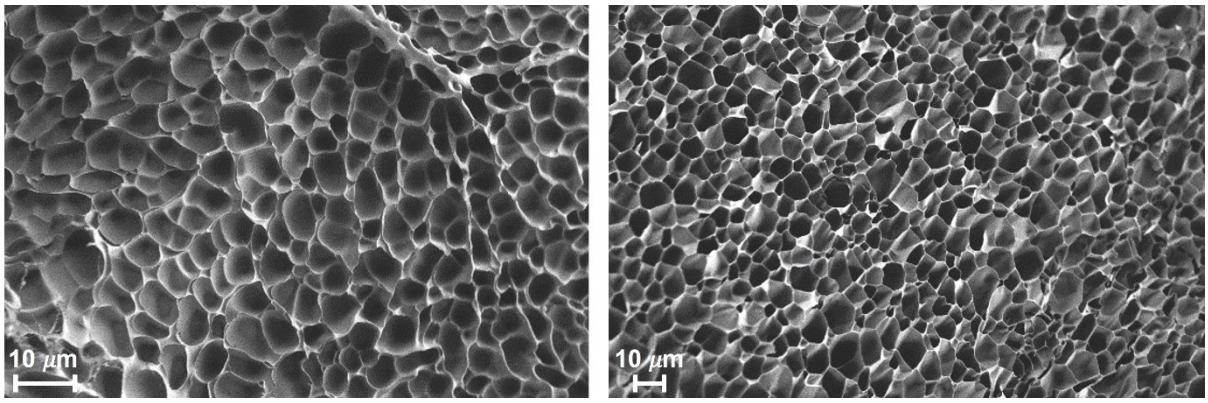

Fig. S3. SEM images of ChDAT hydrogels at maximum swelling degree.

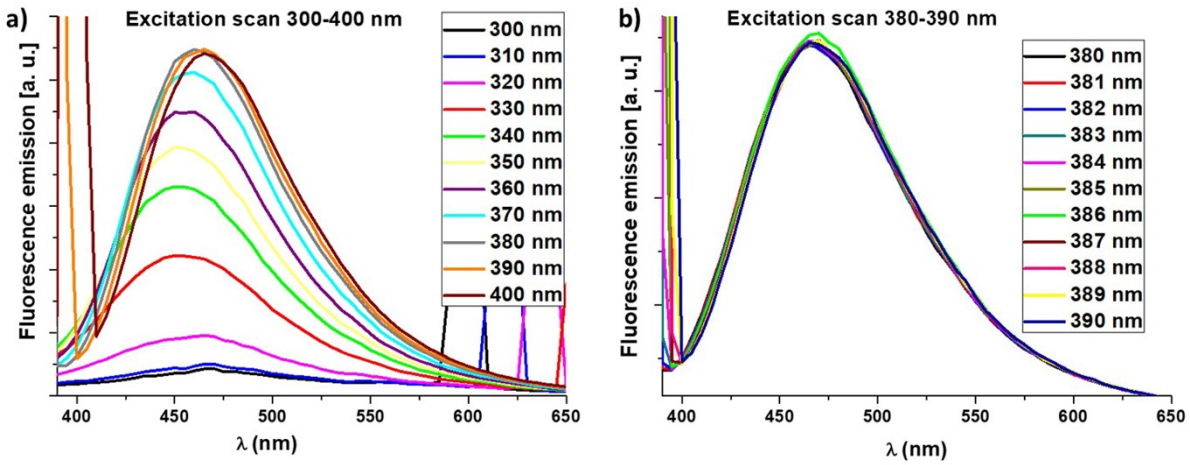

Fig. S4. Determination of the optimal excitation wavelength for ChDAT hydrogel. **(a)** Excitation scan conducted from 300 nm to 400 nm, in 10 nm increments. **(b)** Fine excitation scan conducted from 380 nm to 390 nm, in 1 nm increments.

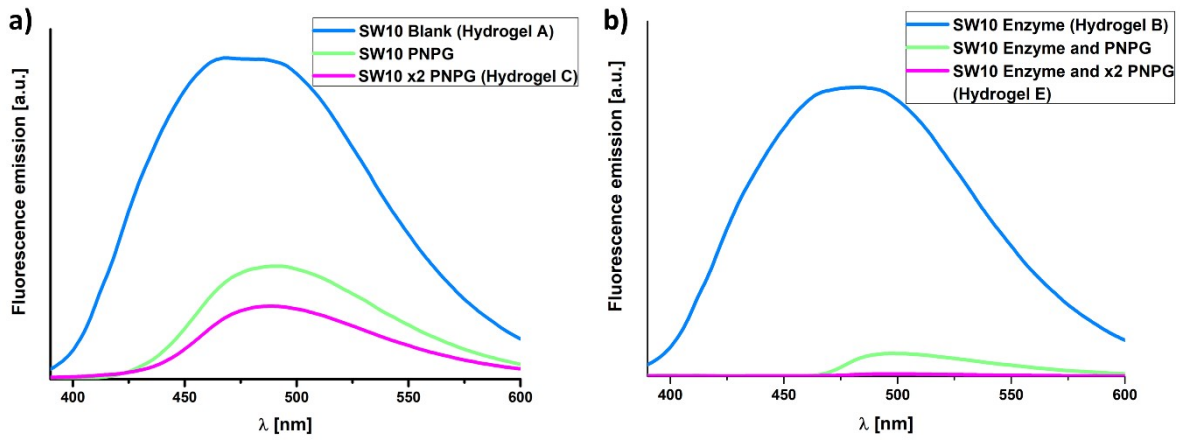

Fig. S5. Fluorescence emission of hydrogels at swelling 10 loaded with: **(a)** PNPG, **(b)** Enzyme and PNPG. The concentration of PNPG in green line is $2.63 \cdot 10^{-3}$ M while the concentration of the pink line is $5.26 \cdot 10^{-3}$ M.

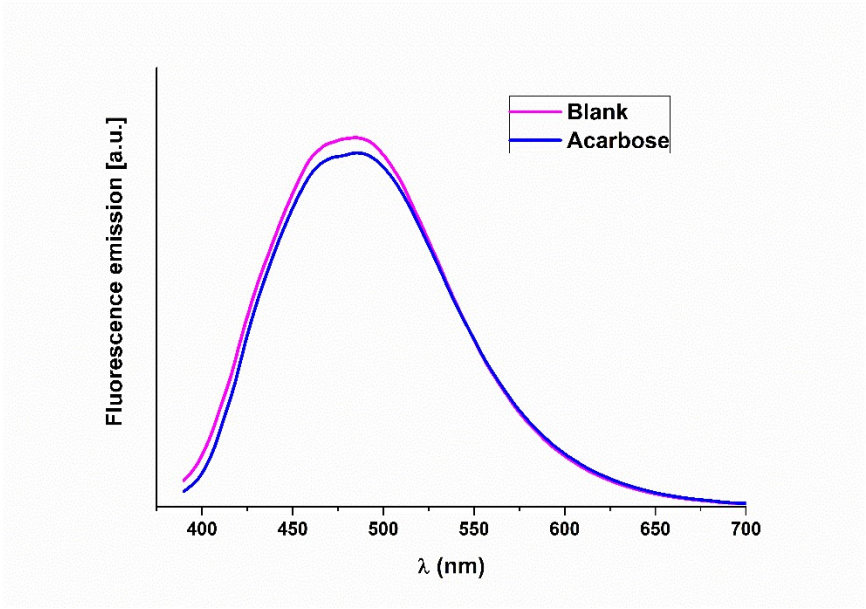

Fig. S6. Comparation of the fluorescence emission of the blank and the acarbose loaded hydrogels.