Supporting information

Solubility Measurement and Various Solubility Parameters of Glipizide in Different Neat Solvents

Mohd Abul Kalam[a], Aws Alshamsan[a], Musaed Alkholief[a], Ibrahim A. Alsarra[b], Raisuddin Ali[b], Nazrul Haq[b], Md Khalid Anwer[c] and Faiyaz Shakeel[*b]

[a]Nanobiotechnolgy Unit, Department of Pharmaceutics, College of Pharmacy, King Saud University, P.O. Box: 2457, Riyadh 11451, Saudi Arabia

[b]Department of Pharmaceutics, College of Pharmacy, King Saud University, P.O. Box: 2457, Riyadh 11451, Saudi Arabia

[c]Department of Pharmaceutics, College of Pharmacy, Prince Sattam bin Abdulaziz University, Al-Kharj, Saudi Arabia

***Corresponding Author:**

Dr. Faiyaz Shakeel

Department of Pharmaceutics, College of Pharmacy,

King Saud University, Riyadh, Saudi Arabia

Email: faiyazs@fastmail.fm

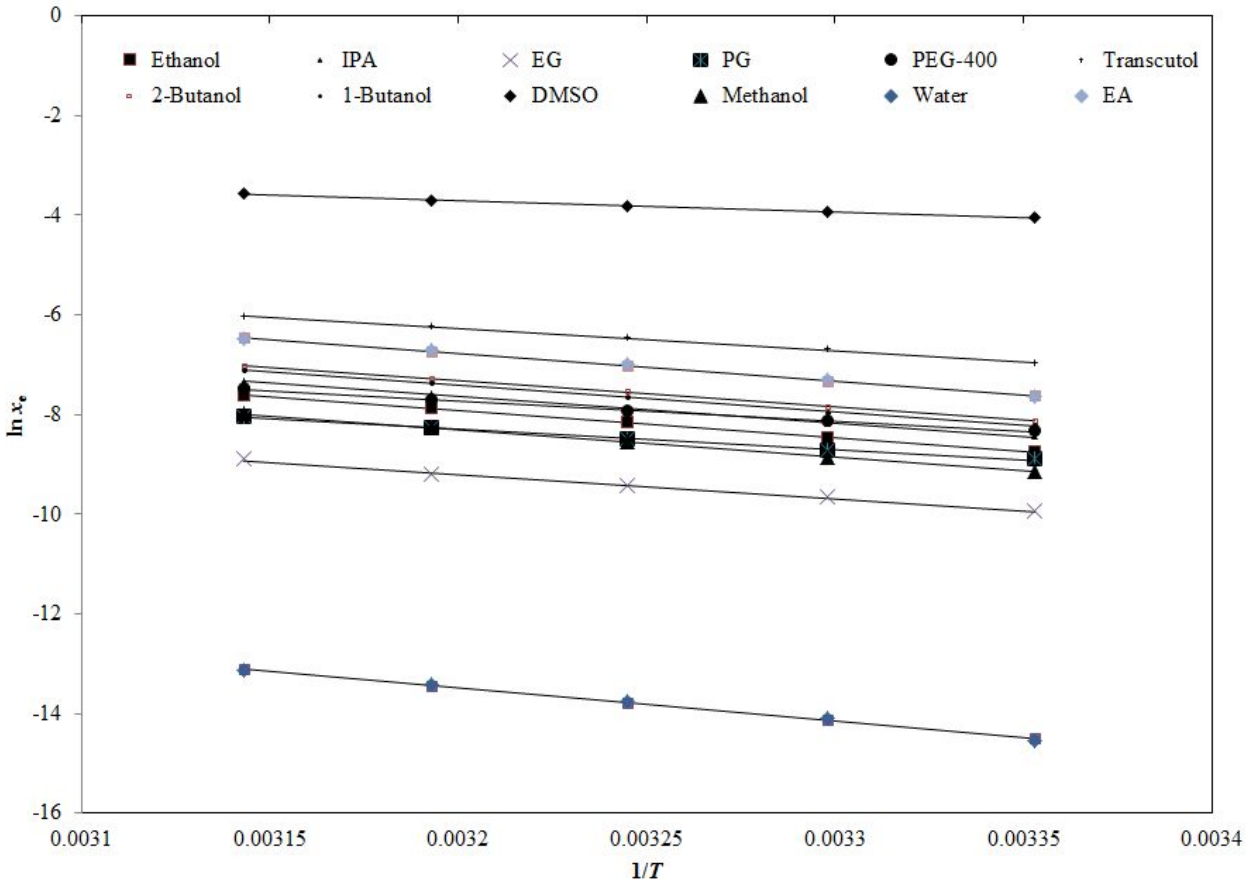

Figure S1: Correlation of ln x_e values of GLZ with "van't Hoff model" in twelve different neat solvents as a function of 1/T; symbols represent the experimental solubilities of GLZ and solid lines represent the solubilities of GLZ calculated by "van't Hoff model"

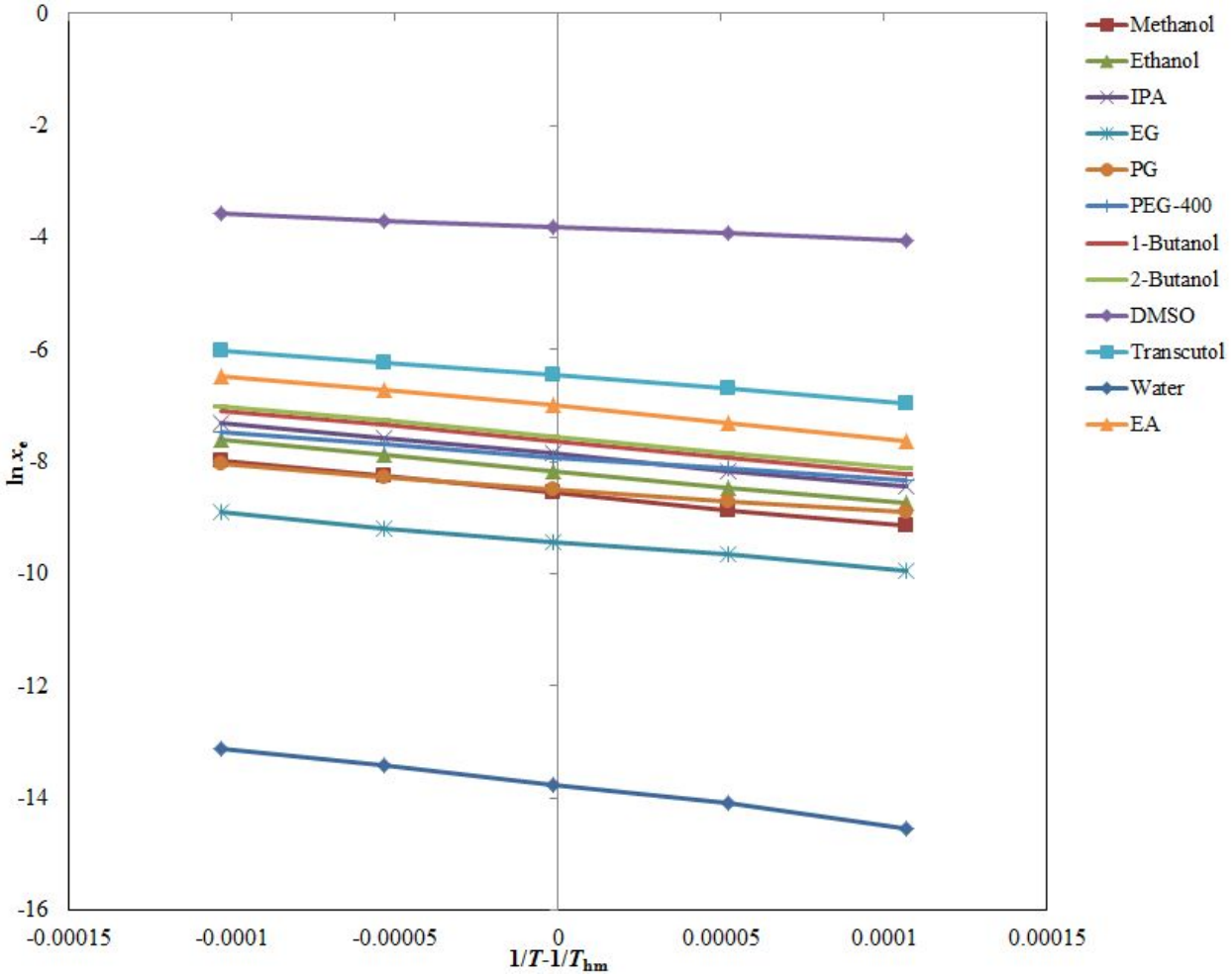

Figure S2: van't Hoff plots for GLZ plotted between ln x_e and 1/T-1/T_{hm} for GLZ in twelve different neat solvents

Table S1: Materials used in the solubility experiment of GLZ

Materials	Molecular formula	Molar mass (g mol^{-1})	CAS Registry no.	Purification method	Mass fraction purity	Analysis method	Source
GLZ	$C_{21}H_{27}O_4N_5S$	445.53	29094-61-9	None	0.980	HPLC	E-Merck
Ethanol	C_2H_5OH	46.07	64-17-5	None	0.999	GC	E-Merck
THP	$C_6H_{14}O_3$	134.17	111-90-0	None	0.999	GC	Gattefosse
EG	$C_2H_6O_2$	62.07	107-21-1	None	0.996	GC	E-Merck
PG	$C_3H_8O_2$	76.09	57-55-6	None	0.995	GC	E-Merck
PEG-400	$H(OCH_2CH_2)_nOH$	400	25322-68-3	None	0.999	HPLC	E-Merck
IPA	C_3H_8O	60.10	67-63-0	None	0.997	GC	E-Merck
EA	C_2H_6OS	88.11	141-78-6	None	0.997	GC	E-Merck
1-Butanol	$C_4H_{10}O$	74.12	71-36-3	None	0.999	GC	E-Merck
2-Butanol	$C_4H_{10}O$	74.12	78-92-2	None	0.999	GC	E-Merck
DMSO	C_2H_6OS	78.13	67-68-5	None	0.990	GC	E-Merck
Methanol	CH_3OH	32.04	67-56-1	None	0.998	GC	BDH PROLABO®
Water	H_2O	18.07	7732-18-5	None	-	-	Milli-Q

Both the analysis method and purity of materials were provided by supplier of each material