Table 6. Metabolites involved in *E. coli* glycolysis pathway. The van der Waals radius (R_{vdW}) was calculated considering the equation for the van der Waals volume. The diffusion coefficient (D_c) is inversely proportional to the R_{vdW} and the viscosity of the medium

PubChem identifier	Metabolite name	R_{vdW} (nm)	D_c ($m^2.s^{-1}$), water, 37°C	Concentration in the cell (mM) [26]
1038	H^+	0.058	5.70×10^{-18}	N/A
1061	P_i	0.194	1.69×10^{-18}	N/A
962	H_2O	0.138	2.38×10^{-18}	N/A
280	CO_2	0.304	1.08×10^{-18}	N/A
5957	ATP	2.799	1.17×10^{-19}	9.60
6022	ADP	2.431	1.35×10^{-19}	$5.60x10^{-1}$
6083	AMP	2.064	1.59×10^{-19}	$2.80x10^{-4}$
439 153	NADH	4.045	8.12×10^{-20}	$8.30x10^{-2}$
925	NAD^+	4.024	8.16×10^{-20}	2.60
5793	β-D-glucose	1.215	2.70×10^{-19}	N/A
439 427	β-D-glucose-6-P	1.583	2.07×10^{-19}	N/A
440 641	β-D-fructose-6-P	1.583	2.07×10^{-19}	N/A
10 267	β-D-fructose-1,6-2P	1.951	1.68×10^{-19}	15.0
4 643 300	glycerone-P	1.038	3.16×10^{-19}	N/A
439 168	D-glyceraldehyde-3-P	1.038	3.16×10^{-19}	N/A
439 191	1,3-2P-D-glycerate	1.475	2.23×10^{-19}	N/A
439 183	3-P-D-glycerate	1.108	2.96×10^{-19}	1.50
439 278	2-P-D-glycerate	1.108	2.96×10^{-19}	N/A
1005	P-enolpyruvate	1.017	3.23×10^{-19}	$1.80x10^{-4}$
1060	Pyruvate	0.649	5.06×10^{-19}	N/A
283	Formate	0.314	1.04×10^{-18}	N/A
444 493	Acetyl-CoA	5.118	6.41×10^{-20}	$6.10x10^{-1}$
6816	CoA	4.647	7.07×10^{-20}	1.40
186	Acetyl-P	0.830	3.96×10^{-19}	1.10
175	Acetate	0.382	8.60×10^{-19}	N/A
177	Acetaldehyde	0.392	8.37×10^{-19}	N/A
702	Ethanol	0.483	6.79×10^{-19}	N/A