

Table S2: Calculated Relative Retention Times of UPLC for Glucagon Samples.

Peak #	Peak Name	Initial Time, 25°C				6 Months, 25°C				24 Months, 25°C				6 Months, 40°C				
		G001			RLD	G001			RLD	G001			RLD	G001			RLD	
		0219 14	0219 14A	0219 14B	C4641 45A	0219 14	0219 14A	0219 14B	C2155 47C	0219 14	0219 14A	0219 14B	C3048 44A	C3048 44C	0219 14	0219 14A	0219 14B	C21554 7C
1	Imp-1	0.166	0.167	0.168	0.123					0.124		0.123	0.121	0.122				
2	Imp-2	0.178	0.178		0.130					0.131	0.131	0.131	0.128	0.129				
3	Imp-3	0.202	0.203	0.204						0.153	0.153	0.153			0.210		0.213	0.213
4	Imp-4													0.191				0.24
5	Imp-5	0.274	0.274	0.275	0.253	0.263	0.263	0.263	0.263	0.253	0.253	0.253	0.252	0.253	0.277	0.279	0.278	0.2775
6	Imp-6	0.297	0.297	0.298	0.277	0.286	0.286	0.286	0.286	0.277	0.277	0.277	0.276	0.277	0.299	0.301	0.301	0.300
7	Imp-7				0.291	0.299		0.298	0.299	0.290	0.290	0.291	0.289	0.290				
8	Imp-8				0.309			0.317	0.317	0.308		0.309	0.308	0.309	0.327	0.329	0.328	0.327
9	Imp-9	0.385	0.386	0.386	0.35	0.358	0.383	0.358	0.358	0.350	0.350	0.350	0.350	0.351	0.368	0.370	0.370	0.369
10	Imp-10				0.372	0.341		0.383	0.382				0.371	0.372	0.396	0.397	0.395	0.389
11	Imp-11	0.489		0.492	0.422	0.422		0.424	0.424	0.422	0.423	0.422	0.421	0.422	0.433		0.437	0.435
12	Imp-12	0.508		0.509	0.448	0.441	0.443	0.439	0.457	0.449		0.449	0.447	0.448	0.459	0.465	0.463	0.464
13	Imp-13				0.477	0.479	0.481	0.479	0.478	0.476	0.477	0.476	0.475	0.477	0.487	0.488	0.488	0.485
14	Imp-14	0.561	0.561	0.565	0.493	0.497	0.499	0.498	0.497	0.493	0.494	0.493	0.491	0.492	0.508	0.511	0.510	0.508
15	Imp-15				0.509	0.518		0.519	0.519	0.508			0.506	0.508	0.529	0.531	0.530	0.533
16	Imp-16				0.527	0.550	0.549	0.556	0.555	0.527			0.527	0.527	0.559	0.561	0.562	0.559
17	Imp-17				0.554					0.544	0.543		0.555	0.555				
18	Imp-18				0.576	0.579	0.573	0.580	0.581	0.577		0.576	0.577	0.577	0.606	0.582	0.605	0.604
19	Imp-19	0.606			0.594	0.603	0.599	0.603	0.602	0.593	0.594	0.593	0.594	0.595		0.606		
20	Imp-20				0.636	0.637	0.635	0.636	0.635	0.636	0.637	0.636	0.635	0.636	0.641	0.644	0.643	0.639
21	Imp-21	0.702	0.706	0.702	0.689	0.702	0.703	0.702	0.701	0.691	0.692	0.689	0.688	0.688	0.704	0.705	0.705	0.702
22	Imp-22			0.751	0.744	0.749	0.749	0.750	0.748	0.744	0.745	0.742	0.742	0.743	0.750	0.749	0.750	0.748
23	Imp-23				0.796	0.800	0.825	0.804	0.802	0.796		0.795	0.795	0.795	0.803	0.809	0.805	0.804
24	Imp-24				0.82			0.820	0.819	0.820		0.820	0.819	0.819				
25	Imp-25				0.848	0.870	0.871	0.868	0.867				0.846	0.847	0.869	0.871	0.869	0.866
26	Imp-26			0.871	0.866					0.867	0.867	0.867	0.867	0.866				
27	Imp-27				0.886					0.885	0.884	0.885	0.885	0.885				
28	Imp-28	0.913	0.912	0.912	0.926			0.927	0.953	0.923	0.921	0.924	0.927	0.928	0.925	0.918	0.952	0.948
29	Imp-29				0.954	0.926	0.926	0.953		0.955		0.954	0.953	0.954	0.951			
30	Imp-30	0.970	0.971	0.969	0.973	0.955				0.969	0.971		0.973	0.972				
31	Glucagon	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
32	Des-1				1.083	1.081	1.082	1.078	1.078	1.0845	1.085	1.083	1.083	1.082	1.078		1.077	1.074
33	Des-2	1.157	1.160		1.145	1.148	1.166	1.144	1.144	1.144	1.147	1.145	1.144	1.144	1.141	1.141	1.139	1.137
34	Des-3			1.252	1.287	1.277	1.275	1.272	1.273	1.287	1.286	1.285	1.286	1.284	1.268	1.269	1.267	1.265
35	Des-4				1.326	1.31	1.31	1.312	1.312	1.3257	1.327	1.325	1.326	1.323	1.3057	1.308	1.305	1.304
36	Imp-31								1.364			1.371	1.362	1.365			1.357	1.356
37	Imp-32																1.581	1.930

G001 = AMP-glucagon; RLD = ELI-glucagon