



OPEN ACCESS

SUPPLEMENTARY DATA

Glycosylation and functionality of recombinant β -glucocerebrosidase from various production systems

Yoram TEKOAH*¹, Salit TZABAN*, Tali KIZHNER*, Mariana HAINRICHSON*, Anna GANTMAN*, Myriam GOLEMBO*, David AVIEZER*† and Yoseph SHAALTIEL*

*Protalix Biotherapeutics, 2 Snunit Street, P.O. Box 455, Carmiel, 2161401, Israel, and †Faculty of Life Sciences, Bar Ilan University, Ramat Gan, 5290002, Israel

Supplementary Table S1 is on the following page

¹ To whom correspondence should be addressed (email yoram.tekoah@protalix.com).

**Table S1 Summary of relative area of peaks from NP-HPLC analysis and molecular mass detection of glycans released from taliglucerase alfa, imiglucerase and velaglucerase alfa**

Fc, core fucose; G, galactose; GU, glucose units; Man₂–Man₉, Man₂₋₉GlcNAc₂; ND = not detected; X, xylose. Numbers are percentage areas 2% and above limit of quantitation. Molecular mass of glycans is calculated as the monoisotopic mass + Na⁺ adduct. Peak numbers are prefixed with T, Taliglucerase alfa, I, Imiglucerase alfa, V, Velaglucerase alfa. *, non-assigned peak.

GU value	Glycan acronym	Mass calculated	Taliglucerase alfa			Imiglucerase			Velaglucerase alfa		
			Peak	Mass detected	% Area	Peak	Mass detected	% Area	Peak	Mass detected	% Area
4.40	Man3	933.318	T1	933.577	ND	I1	933.940	5			
4.62	Fc(3)Man2X	1049.365	T2	1049.483	2						
4.88	Fc(6)Man3 A1	1079.375 1136.397				I2	1079.787 ND	61			
4.93	Man3X	1065.360	T3	1065.501	5						
5.31	Fc(3)Man3	1079.375	T4	ND	ND						
5.36	Fc(6)A1 A2	1282.455 1339.476				I3	1283.006 ND	14			
5.84	Fc(6)A2	1485.534				I4	1486.101	5			
5.90	Fc(3)Man3X	1211.418	T5	1211.565	93						
6.16	Man5	1257.423	T6	ND	ND						
6.26	Fc(6)A1G	1444.508				I5	1445.288	4			
6.40	Fc(3)A1X	1414.497	T7	ND	ND						
7.09	A2G2	1663.582				I6	ND	5			
7.10	Man6	1419.476	T8	ND	ND				V1	1419.117	2
7.73	Fc(6)A2G2	1809.640				I7	ND	3			
7.85	Man7	1581.529							V2	1581.114	5
7.90	*					I8	ND	3			
8.00	Man7	1581.529	T9	ND	ND				V3	1581.114	6
8.30	*								V4	ND	ND
8.49	*								V5	ND	ND
8.72	FcMan7 (?) Man8	1727.135 1743.581							V6	1727.135 1743.124	7
8.75	Man8	1743.581							V7	1743.124	12
8.90	Man8	1743.581	T10	ND	ND				V8	1743.124	10
9.12	*								V9	ND	4
9.55	Man9	1905.634	T11	ND	ND				V10	1905.140	51
10.16	*								V11	ND	ND
10.36	*								V12	ND	4

Received 17 July 2013/6 August 2013; accepted 7 August 2013

Published as Immediate Publication 28 August 2013, doi 10.1042/BSR20130081