

Table 1: The glycosyltransferase reaction library and ID number of an oligonucleotide corresponding glycosyltransferase gene on the CFG microarray.

Reaction pattern	Entrez Gene ID (Common name)	EC number	KO number	CFG Array ID
Gal a1 4 Gal	53947 (A4GALT)	2.4.1.228	K01988	219488_at
Gal b1 3 Gal	126792 (B3GALT6)	2.4.1.134	K00734	NM_080605_s_at, H93450_s_at
Gal b1 3 GalNAc	8705 (B3GALT4)	2.4.1.62	K00715	210205_at
	29071 (C1GALT1C1)	-	-	-
	56913 (C1GALT1)	2.4.1.122	K00731	219439_at
Gal b1 3 GlcNAc	8706 (B3GALT3)	2.4.1.79	K00719	211379_x_at, 211812_s_at
	8707 (B3GALT2)	-	-	210121_at
	8708 (B3GALT1)	-	-	220829_s_at, 222969_at
	10317 (B3GALT5)	2.4.1.-	K03877	206947_at
Gal b1 4 Glc	9331 (B4GALT6)	2.4.1.-	-	206232_s_at, 206233_at
Gal b1 4 GlcNAc	2683 (B4GALT1)	2.4.1.-, 2.4.1.22, 2.4.1.38, 2.4.1.90	K00704, K00708	201882_x_at, 201883_s_at
	8702 (B4GALT4)	2.4.1.-, 2.4.1.90	-	210540_s_at
	8703 (B4GALT3)	2.4.1.-, 2.4.1.38, 2.4.1.90	k00708	210243_s_at
	8704 (B4GALT2)	2.4.1.-, 2.4.1.22, 2.4.1.38, 2.4.1.90	k00704, k00708	209413_at
	9331 (B4GALT6)	2.4.1.-	-	206232_s_at, 206233_at
	9334 (B4GALT5)	2.4.1.38	k00708	221484_at, 221485_at
Gal b1 4 Xyl	11285 (B4GALT7)	2.4.1.133	k00733	53076_at
Gal a1 3 Gal	28 (ABO)	2.4.1.37, 2.4.1.40	K00707, K00709	214504_at
GalNAc a1 3 Gal	28 (ABO)	2.4.1.37, 2.4.1.40	K00707, K00709	214504_at
GalNAc a1 3 GalNAc	26301 (GBGT1)	2.4.1.88	K00722	231780_at
GalNAc b1 4 Gal	2583 (GALGT)	2.4.1.92	K00725	206435_at
	124872 (GALGT2)	-	-	-
GalNAc b1 4 GlcA	22856 (CHSY1)	-	-	-
	55454 (GALNACT-2)	-	-	-
	55790 (ChGn)	-	-	-
	337876 (CSS3)	-	-	-
GlcA b1 3 GalNAc	22856 (CHSY1)	-	-	-
	337876 (CSS3)	-	-	-
GlcA b1 3 Gal	26229 (B3GAT3)	2.4.1.135	K00735	35179_at, 203452_at
	27087 (B3GAT1)	2.4.1.135	K00735	219521_at
	135152 (B3GAT2)	2.4.1.135	K00735	-
GlcNAc a1 4 GlcA	2131 (EXT1)	2.4.1.224, 2.4.1.225	K02366	201995_at
	2132 (EXT2)	2.4.1.224, 2.4.1.225	K02367	202012_s_at, 202013_s_at
	2134 (EXTL1)	2.4.1.224	K02368	206329_at
	2135 (EXTL2)	2.4.1.223	K02369	209537_at
	2137 (EXTL3)	2.4.1.223, 2.4.1.224	K02370	211051_s_at, AF083551_s_at
GlcA b1 4 GlcNAc	2131 (EXT1)	2.4.1.224, 2.4.1.225	K02366	201995_at
	2132 (EXT2)	2.4.1.224, 2.4.1.225	K02367	202012_s_at, 202013_s_at

Reaction pattern	Entrez Gene ID (Common name)	EC number	KO number	CFG Array ID
GlcNAc b1 4 GlcA	3036 (HAS1)	2.4.1.212	-	-
	3037 (HAS2)	2.4.1.212	-	-
	3038 (HAS3)	2.4.1.212	-	-
GlcA b1 3 GlcNAc	3036 (HAS1)	2.4.1.212	-	-
	3037 (HAS2)	2.4.1.212	-	-
	3038 (HAS3)	2.4.1.212	-	-
GlcNAc a1 4 Gal	51146 (A4GNT)	-	-	221131_at
GlcNAc b1 2 Man	4245 (MGAT1)	2.4.1.101	K00726	201126_s.at
	4247 (MGAT2)	2.4.1.143	K00736	203102_s.at
	55624 (FLJ20277)	-	-	217944_at
GlcNAc b1 3 Gal	10331 (B3GNT3)	2.4.1.-	-	204856_at, AB049584_x.at
	10678 (B3GNT1)	2.4.1.149	K00741	224154_at, AB049584_s.at
	11041 (B3GNT6)	2.4.1.149	K00741	203188_at
	79369 (B3GNT4)	-	-	221240_s.at
	84002 (B3GNT5)	2.4.1.206	K03766	225612_s.at
	93010 (B3GNT7)	-	-	XM_091928_at
GlcNAc b1 3 GalNAc	192134 (B3Gn-T6)	2.4.1.147	K00739	AB073740_at
GlcNAc b1 3 LFuc	3955 (LFNG)	-	K05948	215270_at
	4242 (MFNG)	2.4.1.222	K05948	204152_s.at, 204153_s.at
GlcNAc b1 4 Man	4248 (MGAT3)	2.4.1.144	K00737	209764_at
	11282 (MGAT4B)	2.4.1.145	K00738	220189_s.at
	11320 (MGAT4A)	2.4.1.145	K00738	219797_at
	25834 (HGNT-IV-H)	-	-	-
GlcNAc b1 6 Gal	2651 (GCNT2)	2.4.1.150	K00742	211020_at
GlcNAc b1 6 GalNAc	2650 (GCNT1)	2.4.1.102	K00727	205505_at
	9245 (GCNT3)	-	-	219508_at
	51301 (C2GNT3)	-	-	220831_at
GlcNAc b1 6 Man	4249 (MGAT5)	2.4.1.155	K00744	206720_at
	90693 (LOC90693)	-	-	-
Glc a1 3 Glc	79053 (ALG8)	2.4.1.-	K03849	-
Glc a1 3 Man	29929 (ALG6)	2.4.1.-	K03848	-
	55757 (UGCGL2)	2.4.1.-	-	218801_at
	56886 (UGCGL1)	-	-	-

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LFuc a1 2 Gal	2523 (FUT1)	2.4.1.69	K00718	206109_at
	2524 (FUT2)	2.4.1.69	K00718	208505_s_at, D87942_at, D87942_s_at
LFuc a1 3 GlcNAc	2525 (FUT3)	2.4.1.65	K00716	214088_s_at
	2526 (FUT4)	2.4.1.-	-	209892_at, 209893_s_at
	2527 (FUT5)	2.4.1.65	K00716	211225_at, U27330_at
	2528 (FUT6)	2.4.1.65	K00716	210398_x_at, 210399_x_at, 211465_x_at, 211882_x_at, 211885_x_at
	2529 (FUT7)	2.4.1.-	-	210506_at
	10690 (FUT9)	-	-	207696_at
LFuc a1 4 GlcNAc	2525 (FUT3)	2.4.1.65	K00716	214088_s_at
LFuc a1 6 GlcNAc	2530 (FUT8)	2.4.1.68	K00717	203988_s_at
Man a1 2 Man	9488 (PIGB)	-	K05286	205452_at
	80235 (SMP3)	-	-	-
Man a1 3 Man	10195 (ALG3)	2.4.1.130	K03845	207396_s_at
	85365 (ALG2)	2.4.1.132	K03843	-
Man a1 4 GlcNAc	93183 (PIGM)	-	K05284	223470_at
Man a1 6 Man	79087 (ALG12)	2.4.1.130	K03847	218444_at
Man b1 4 GlcNAc	56052 (ALG1)	2.4.1.142	K03842	223355_at
Neu5Ac a2 3 Gal	6482 (ST3GAL1)	2.4.99.4	K00780	208322_s_at
	6483 (ST3GAL2)	2.4.99.4	K03368	205346_at
	6484 (ST3GAL4)	2.4.99.4	K03494	203759_at
	6487 (ST3GAL3)	2.4.99.6	K00781	225905_s_at
	8869 (ST3GAL5)	2.4.99.9	K03370	203217_s_at
	10402 (ST3GAL6)	2.4.99.10	K03792	210942_s_at
Neu5Ac a2 6 Gal	6480 (ST6GAL1)	2.4.99.1	K00778	201998_at, 214971_s_at
	84620 (ST6GAL2)	-	-	-
Neu5Ac a2 6 GalNAc	10610 (ST6GALNAC2)	2.4.99.-	-	204542_at
	27090 (ST6GALNAC4)	2.4.99.7	K03374	220937_s_at
	30815 (ST6GALNAC6)	2.4.99.-	K03376	222571_at
	55808 (ST6GALNAC1)	2.4.99.3	K03479	227725_at
	81849 (ST6GALNAC5)	-	-	BC001201_at
	256435 (ST6GALNAC3)	2.4.99.-	K03373	PROP_SIAT_at
Neu5Ac a2 8 Neu5Ac	6489 (ST8SIA1)	2.4.99.8	K03371	210073_at
	7903 (ST8SIA4)	2.4.99.-	-	206925_at
	8128 (ST8SIA2)	2.4.99.-	-	221285_at
	29906 (ST8SIA5)	2.4.99.-	K03369	206258_at
	51046 (ST8SIA3)	2.4.99.-	-	208064_s_at, 208065_at