SUPPLEMENTARY MATERIALS

TABLE

Table S1. Amino acid sequences of β-chain CDR expressed by iNKT cell hybridomas used in this study

Hybridoma	**TCRβ**[a]	**CDR1β**[b,c]	**CDR2β**[b,c]	**CDR3β**[c]	**Jβ**
H41-2D9/Vα14	TRBV19*01 (Vβ6)	qqn FNHDT myw	iyy SITEND lqk	cass IARATE vffg	1.1
Vα14/ Vβ7	TRBV29*02 (Vβ7)	gqd MSHET myw	iyi SYDVDS nse	cass LRGQNT lyfg	2.4
Vα14/DOβ	TRBV13-2*01 (Vβ8.2)	nqt NNHNN myw	ihy SYGAGS tek	casg SGTTNT evfg	1.1
N38-3C3				casg DQITGQ lyfg	2.2
DN32-D3				casg DPDIQNT lyfg	2.4
N38-2C12				casg DEGYT qyfg	2.5
N37-1H5a				casg AQGLSSYE qyfg	2.6
N57-2C12	TRBV31*02 (Vβ14)	tik GKSSPN lyw	lfy SITVG qev	caws RTANSD ytfg	1.2i
N57-2B6				caws SNSD ytfg	1.2ii
H41-2C9				caws TGDE qyfg	2.5
H41-3C5				cawt GGQGQDT qyfg	2.6

[a]IMGT nomenclature; old designation in parenthesis

[b]sequences obtained from IMGT (http://www.imgt.org/textes/IMGTrepertoire/)

[c]amino acid residues flanking the CDR are in lower case; from http://www.imgt.org/textes/IMGTrepertoire/

Supplementary Figure Legends

Figure S1: Structures of glycolipids and their variants used in this study.

(**A**) Structure of native glycolipid antigens. (**B**) Structures of 3' and 4' αGalCer variants. (**C**) Structures of terminal α1,3Gal variants of iGb3.

Figure S2: Schematic rendition of NKTcr/CD1d- GalCer interactions. Mouse CD1d-αGalCer interactions are based on the reported crystal structure (Zajonc et al., 2005). NKTcr/CD1d-αGalCer interactions are adapted from the recently reported crystal structure of the mouse Vα14-Vβ8.2 NKTcr/CD1d-αGalCer co-complex (Pellicci et al., 2009). Blue, mouse CD1d residues; red, Vα14 residues; black, αGalCer.

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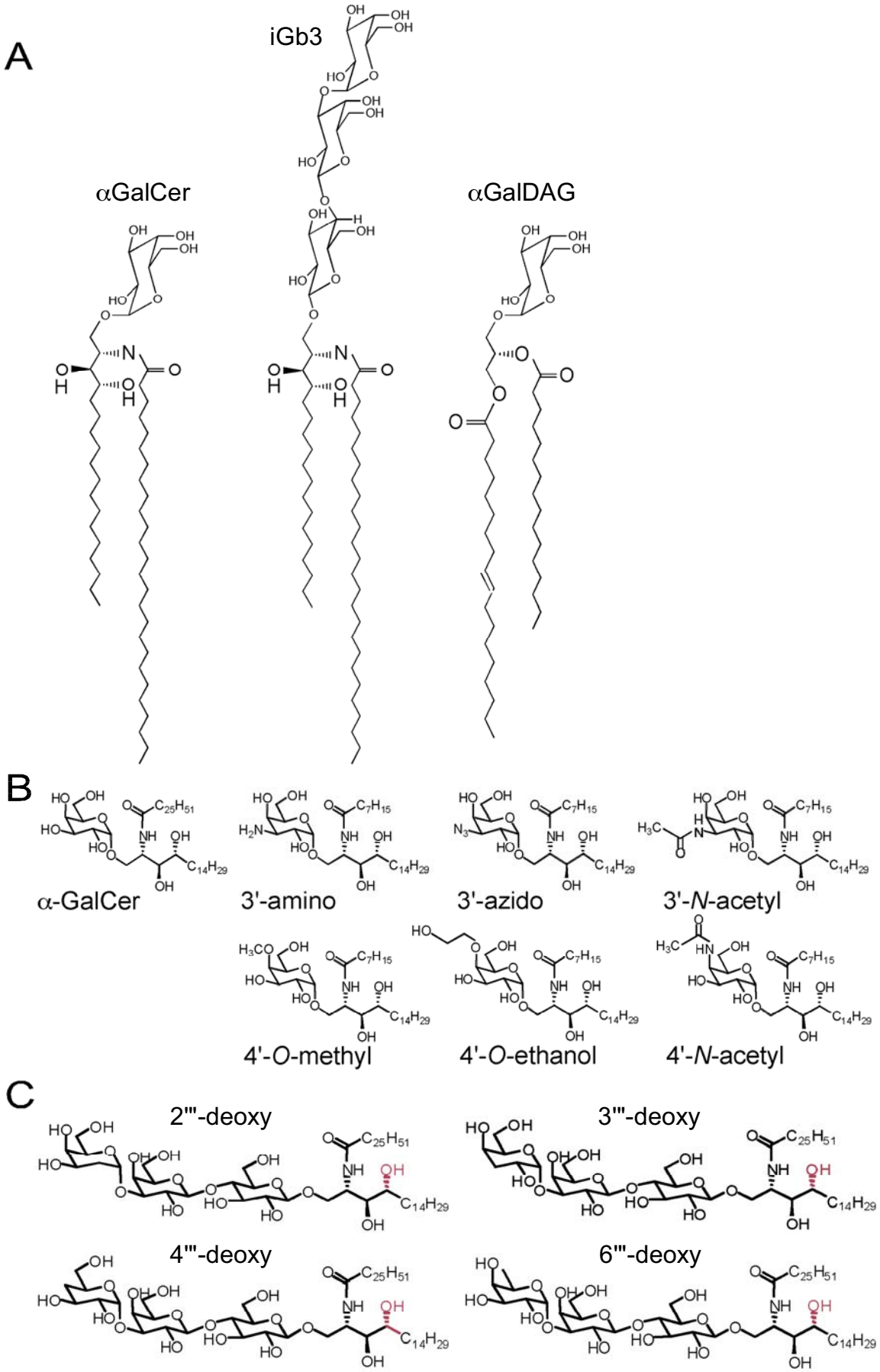
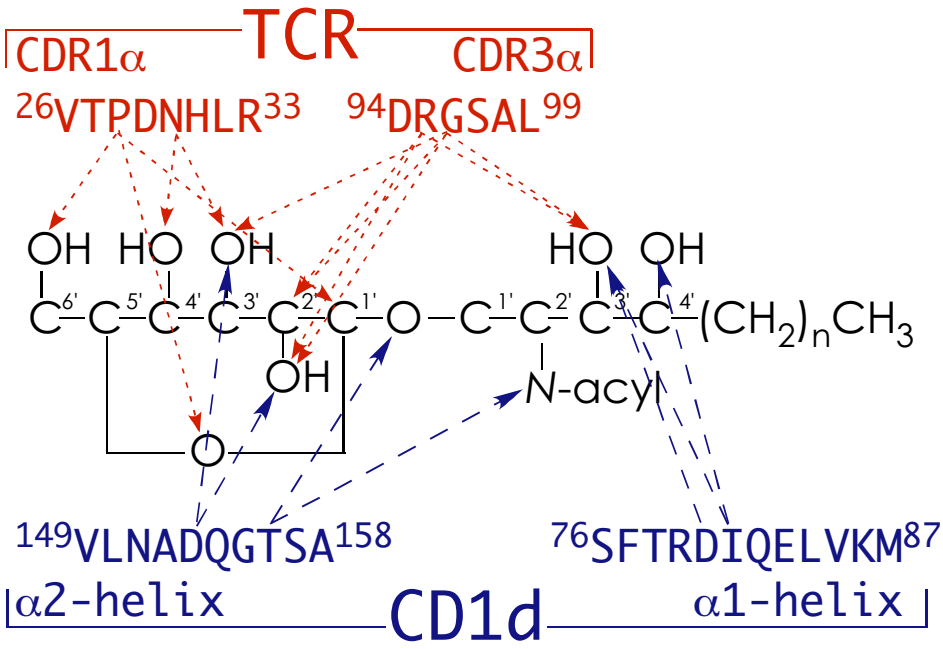
Pellicci, D.G., Patel, O., Kjer-Nielsen, L., Pang, S.S., Sullivan, L.C., Kyparissoudis, K., Brooks, A.G., Reid, H.H., Gras, S., Lucet, I., Koh, R., Smyth, M.J., Mallevaey, T., Matsuda, J.L., Gapin, L., McCluskey, J., Godfrey, D.I. and Rossjohn, J. (2009) Differential recognition of CD1d-α-galactosyl ceramide by the Vβ8.2 and Vβ7 semi-invariant NKT T-cell receptors. *Immunity*, **31**, 47-59.

Zajonc, D.M., Cantu, C., 3rd, Mattner, J., Zhou, D., Savage, P.B., Bendelac, A., Wilson, I.A. and Teyton, L. (2005) Structure and function of a potent agonist for the semi-invariant natural killer T cell receptor. *Nat Immunol*, **6**, 810-818.



Supplementary Figure 1



Supplementary Figure 2