

**Supplementary table 1: Cancer-testis antigens used for T-cell immunity screening in AZA treated patients**

Gene	HLA allele	Peptide	References
CDCA1/NUF2			
	A2	KLATAQFKI	Harao, 2008
	A2	YMMPVNSEV	Harao, 2008
GnTV			
	A2	VLPDVFIRCV	Guilloux, 1996
	A2	VLPDVFIRC	Guilloux, 1996
HERV-K-MEL			
	A2	MLAVISCAV	Schiavetti, 2002
LAGE-1			
	A2	MLMAQEAL AFL	Aarnoudse, 1999
	A2	SLLMWITQC	Rimoldi, 2000
	B7	APRGVRMAV	Slager, 2004
MAGE-A1			
	A1	EADPTGHSY	Traversari, 1992
	A2	KVLEYVIKV	Ottaviani, 2005; Pascolo, 2001
	B7	RVRFFFPSL	Luiten, 2000
	A3	SLFRAVITK	Chaux, 1999
MAGE-A10			
	A2	GLYDGMEHL	Bricard, 2005; Huang, 1999
MAGE-A2			
	A2	KMVELVHFL	Visseren, 1997
	A2	YLQLVFGIEV	Kawashima, 1998
	A2	LVHFLLLKY	Bredenbeck. 2005
	A2	LVQENYLEY	Bredenbeck. 2005
MAGE-A3			
	A1	EVDPIGHLY	Gaugler, 1994
	A2	FLWGPRALV	van der Bruggen, 1994
	A2	KVAELVHFL	Kawashima, 1998
	A2	LVFGIELMEV	Keogh, 2001
MAGE-A4			
	A1	EVDPASNTY	Kobayashi, 2003
	A2	GVYDGREHTV	Duffour, 1999
MAGE-A6			
	A2	YLEYRQVPV	Graff-Dubois, 2002

<b>Gene</b>	<b>HLA allele</b>	<b>Peptide</b>	<b>References</b>
MAGE-A9			
	A2	AL SVMGVYV	Oehlrich, 2005
MAGE-C2			
	A2	LL FGLALIEV	Ma, 2004
	A2	ALKDVEERV	Ma, 2004
NY-ESO-1 / LAG			
	A2	ML MAQEAL AFL	Aarnoudse, 1999
	A2	QL SLLMWIT	Jager, 1998
	A2	SLLMWITQA	Jager, 1998; Chen, 2000
	A2	SLLMWITQC	Jager, 1998; Chen, 2000
	A2	SLLMWITQCFL	Jager, 1998
	B7	APRGPHGGAAS	Ebert, 2009
SART-3			
	A2	RL AEYQAYI	Ito, 2000
	A3	WLEYYNLER	Minami, 2007
	A3	QIRPIFSNR	Minami, 2007
	A2	LL QAEAPRL	Ito, 2000
Sp17			
	A1	ILD SSEEDK	Chiriva-Internati, 2003
SSX-2			
	A2	KASE KIFYV	Ayyoub, 2002; Bricard, 2005
	A2	RL QGISPKI	Wagner, 2003
TAG			
	A3	RL SNRLLL R	Hogen, 2004
TAG-1			
	A2	SL GWLFLLL	Adair, 2008
TRAG-3			
	A2	ILL RDAGLV	Zhu, 2003
TRP2-6b			
	A2	ATT NILEHY	Khong, 2002