Supplementary Table S5. Bacterial strains, mammalian cell lines and plasmids used in this study.

Sources of all plasmids, including noted features and applications herein, and the corresponding host cells used for expression are provided. For the pMAL-c5X constructs, each codon spanning the exon 2/4 splice junction of human CENP-A-ΔExon3 (protein sequence: LIRKLPFSRLAAEAFLVHLFEDA) was serially replaced by alanine, or serine if the native residue is an alanine, except for the first and last four codons since these were excluded from primary immunogen designs. For the pSNAPf constructs, the inserts include cDNA sequences for either CENP-A (accession numbers ENST00000335756.9 and NM_001809) or CENP-A-ΔExon3 (accession numbers ENST00000233505.12 and NM_001042426).

Plasmid	Features	Manufacturer (Plasmid)	Host Strain or Cell Line	Manufacturer (Host Strain or Cell Line)	Applications
ScFv Phagemids	human scFv with C-terminal 6xHIS tag and Myc tag; C-terminal fusion to the coat protein III of M13 bacteriophage	Abcam (Branford, CT)	TG1 (*E. coli*)	Lucigen Corporation (Middleton, WI)	phage transduction during screening, expression of soluble scFvs for cell supernatant and protein ELISAs
ScFv Phagemid Libraries	human scFv with C-terminal 6xHIS tag and Myc tag; C-terminal fusion to the coat protein III of M13 bacteriophage	Abcam (Branford, CT)	TG1-AXE688 (*E. coli*)[23]; TG1 parental strain transformed with an expression vector made by Abcam (Branford, CT) containing the *Eco*29 I RM operon[29]	Lucigen Corporation (Middleton, WI) on behalf of Abcam (Branford, CT)	library transformations and library phage production for Discovery (AXL40, AXL41), Directed Evolution (DEL6691, DEL6695, DEL6698), and Affinity Maturation (AML6691 Clone 1 and Clone 2) libraries
IgG Expression Plasmids	rabbit IgG	Abcam (Branford, CT)	NEB® 5-alpha (*E. coli*)	New England BioLabs (Ipswich, MA)	subcloning of antibody heavy and light chain genes from PBMCs, plasmid purifications
pMAL-c5X	epitope scan peptides for the exon 2/4 splice junction of human CENP-A-ΔExon3; N-terminal fusion to MBP; C-terminal HA tag (YPYDVPDYA) and 6xHIS tag; subcloned into *Nde*I and *Bam*HI	Bio Basic (Markham, Canada)	NEBExpress® (*E. coli*)	New England BioLabs (Ipswich, MA)	transformation, expression and purification of MBP-fusion peptides for epitope scanning ELISAs
$pSNAP_f$	human CENP-A and human CENP-A-ΔExon3 cDNA sequences fused to a C-terminal SNAP-tag; subcloned into *Eco*RV and *Eco*RI	Purchased from New England BioLabs (Ipswich, MA), Subcloned by Dr. Rachel O'Neill's lab at the University of Connecticut (Storrs, CT)	FreeStyle™ 293-F (human embryonic kidney cells)	Life Technologies (Carlsbad, CA)	transfection and overexpression of CENP-A and CENP-A-Δ Exon3 protein to produce whole cell lysates for western blot assays