

FIGURE 1

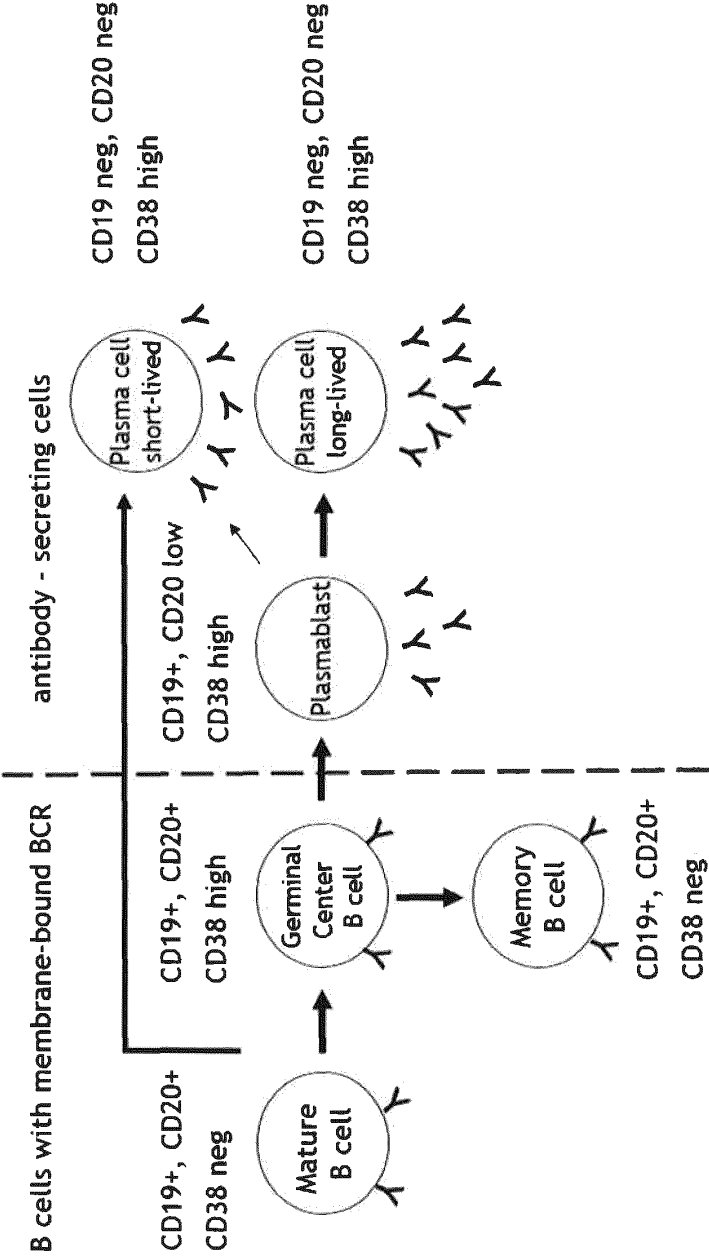


FIGURE 2

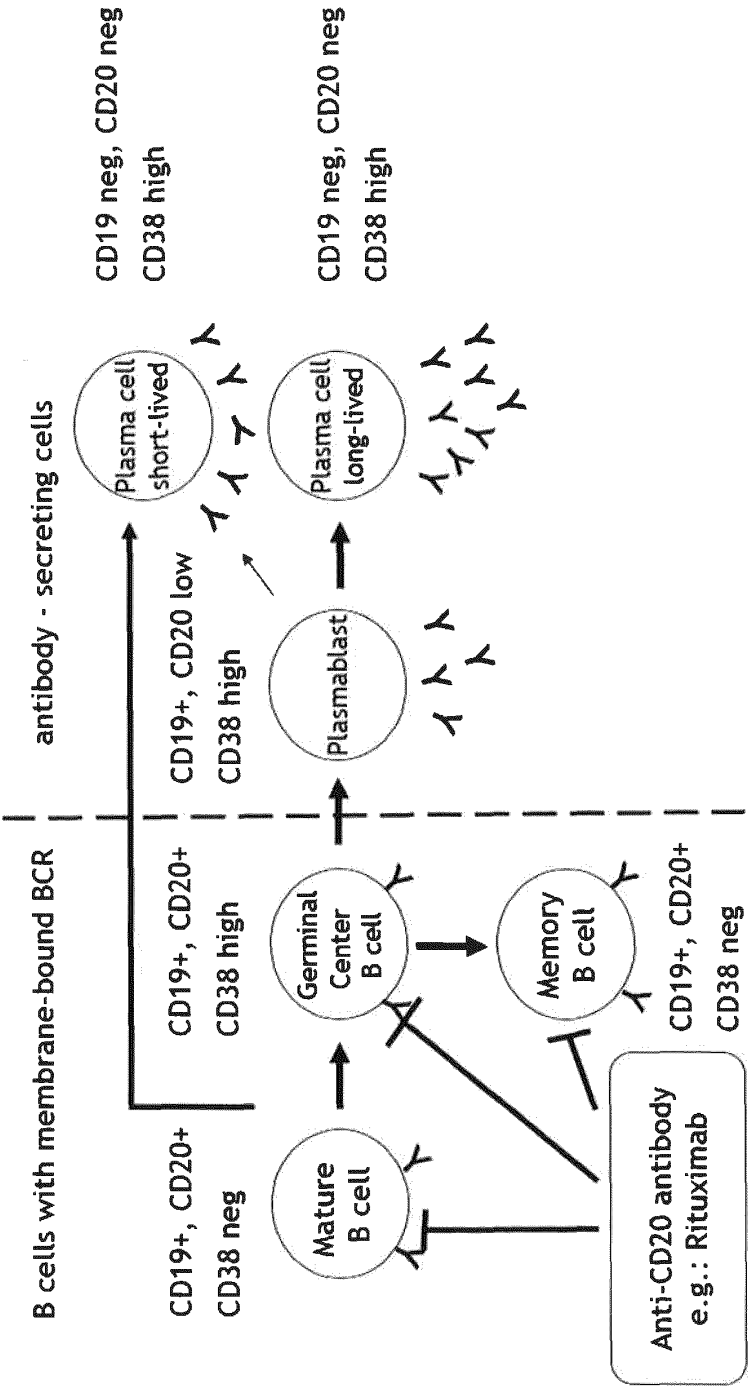


FIGURE 3

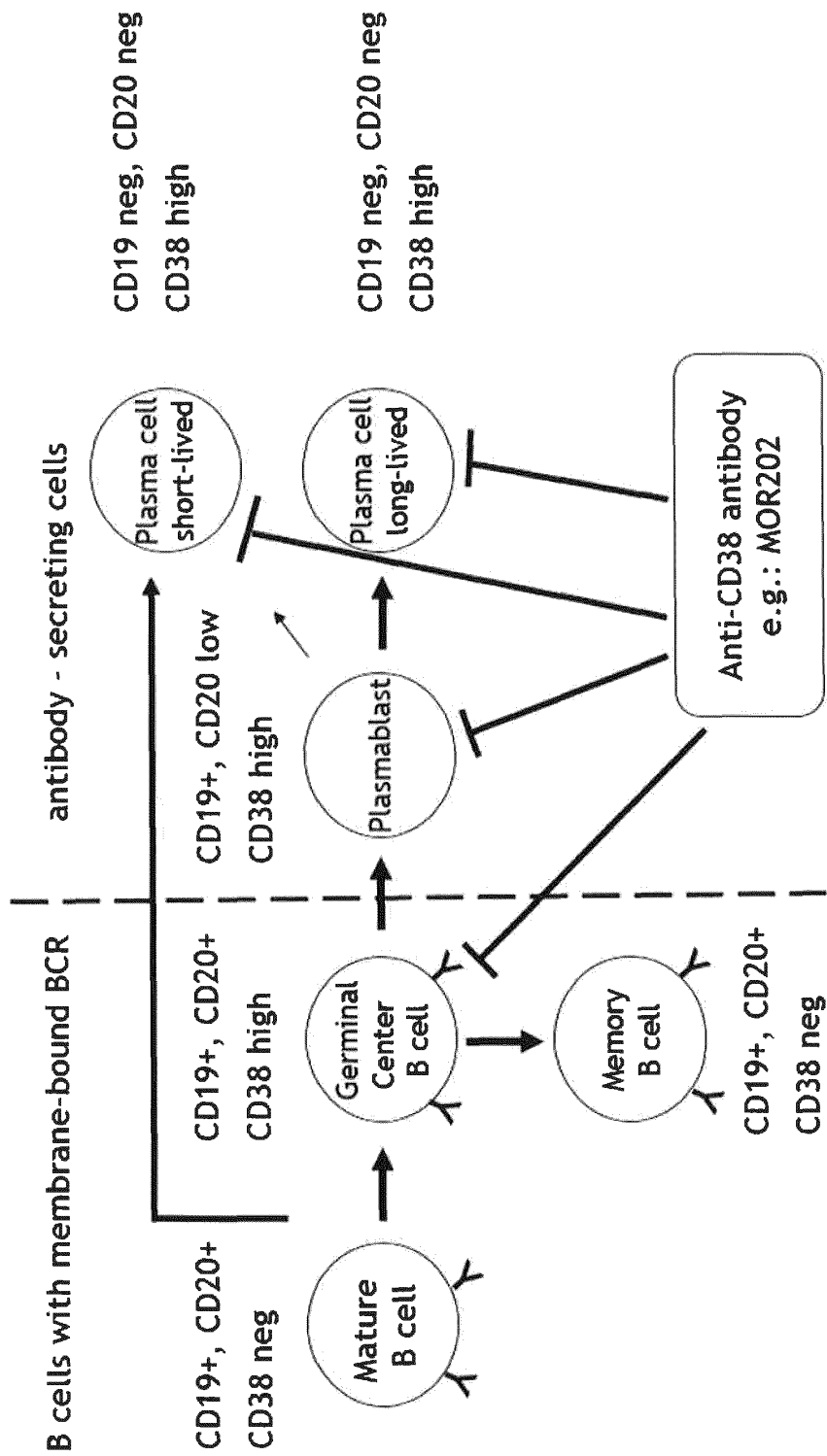


FIGURE 4

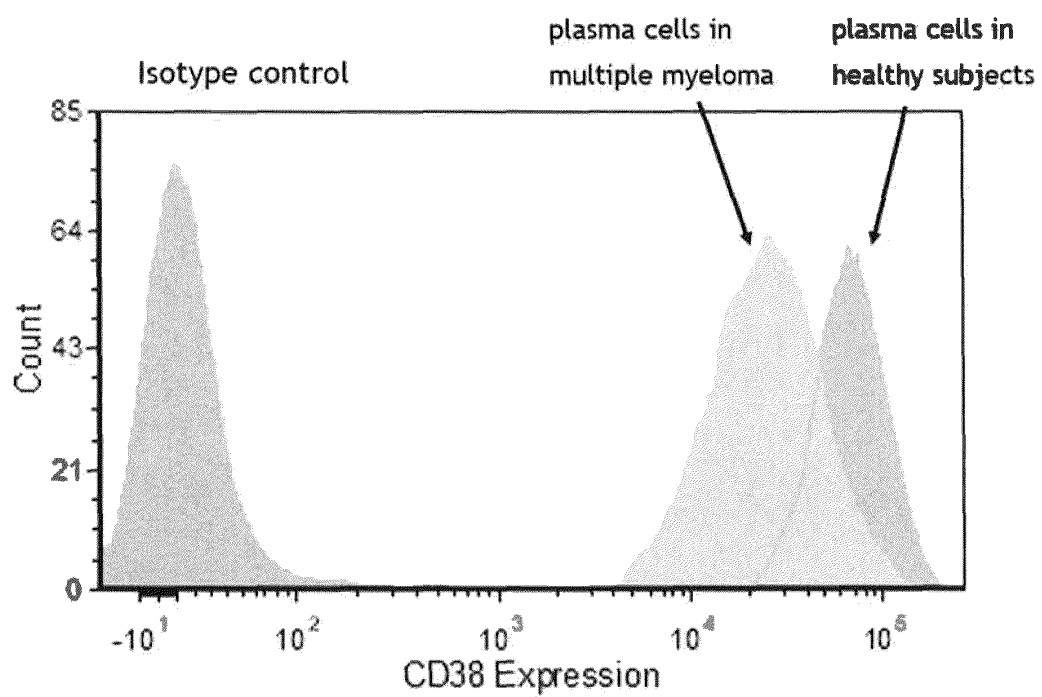


FIGURE 5

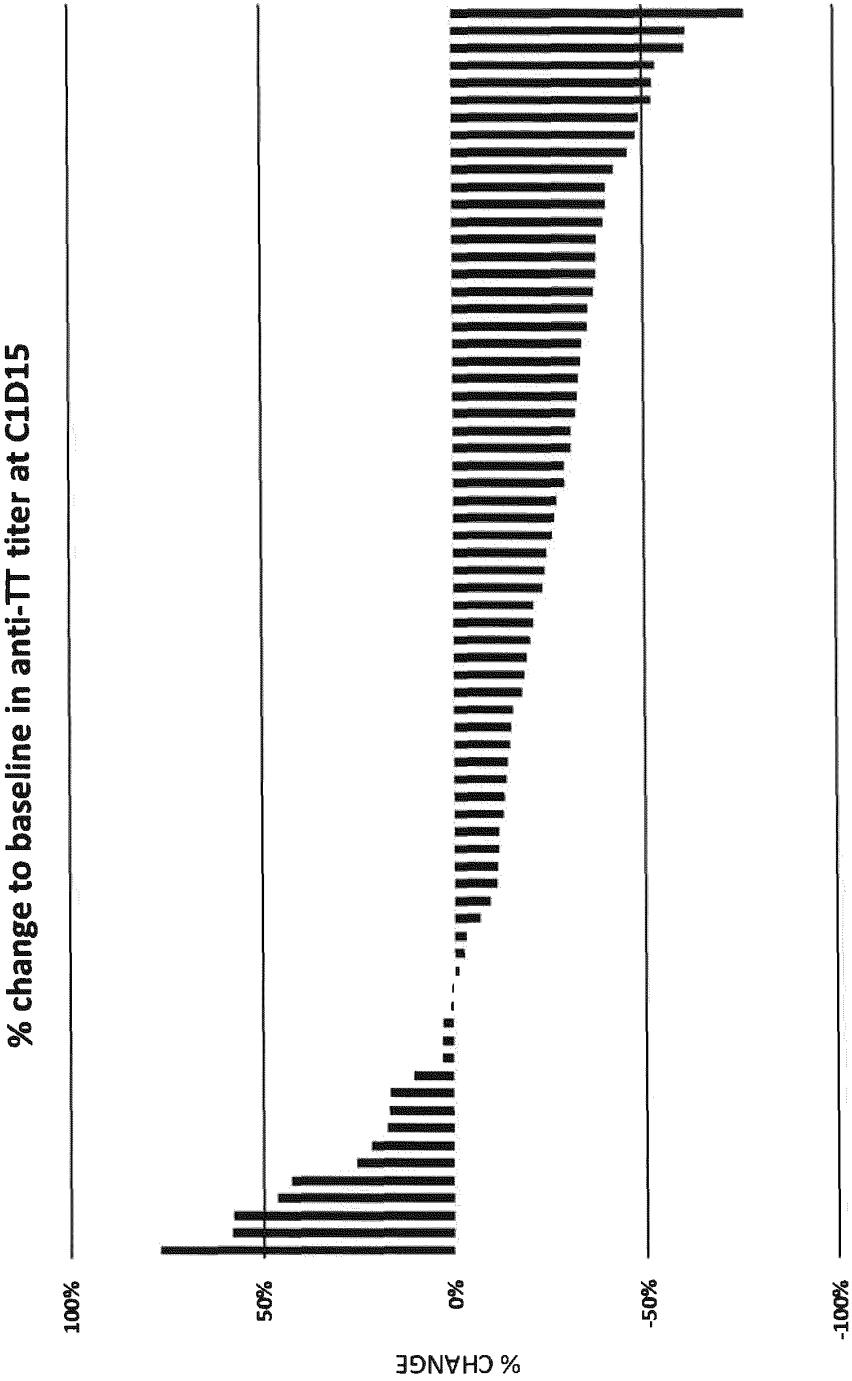


FIGURE 6

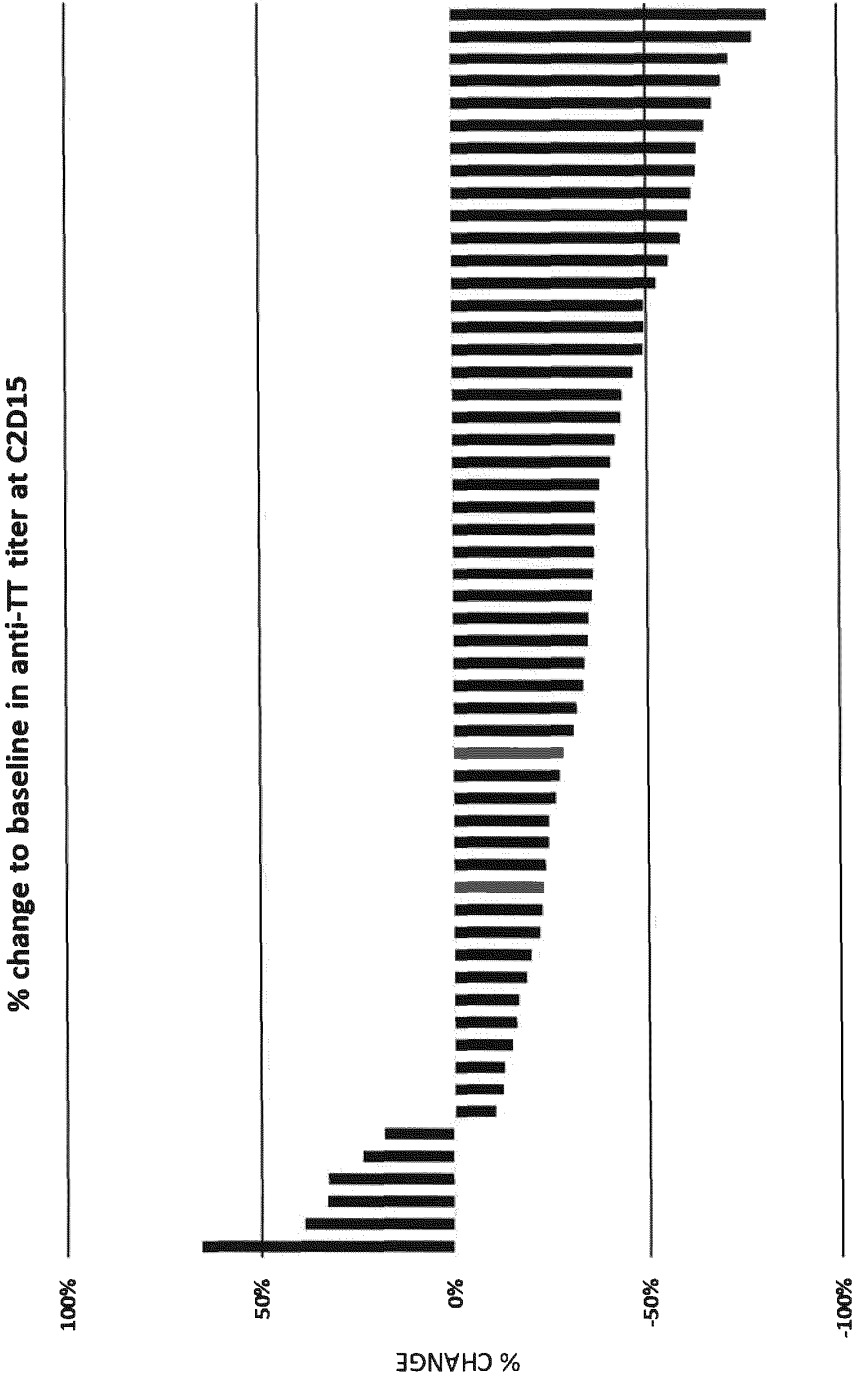


FIGURE 7

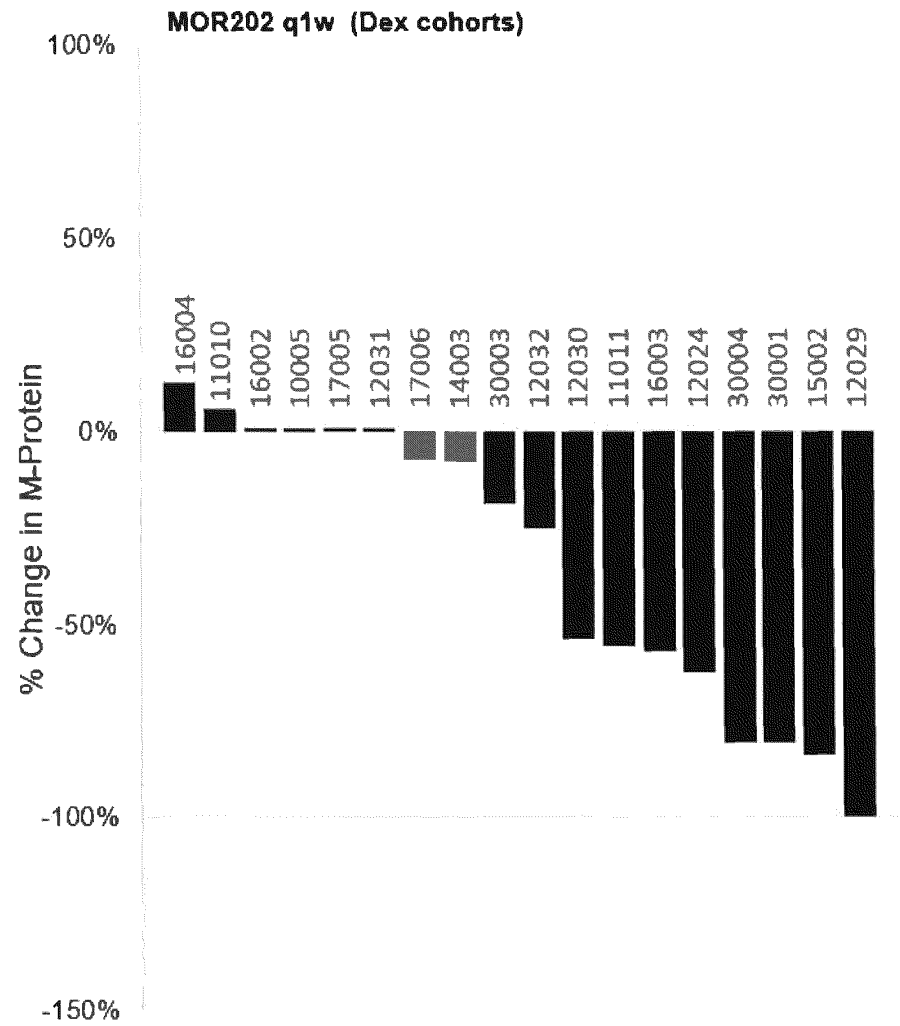


FIGURE 8

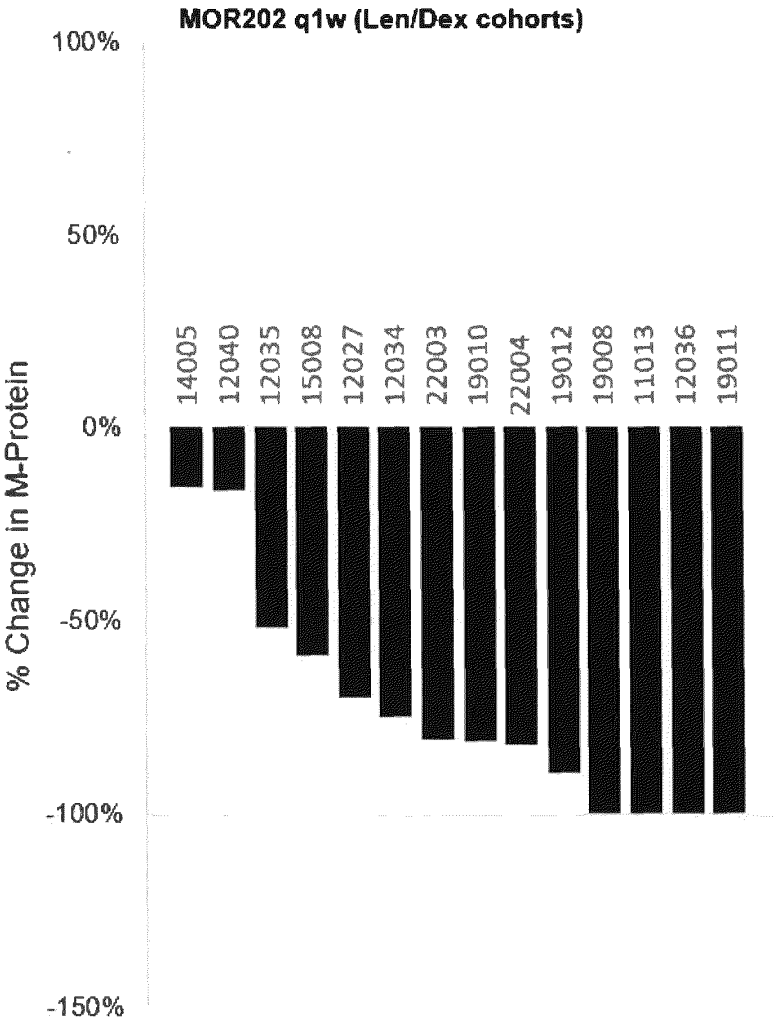


FIGURE 9

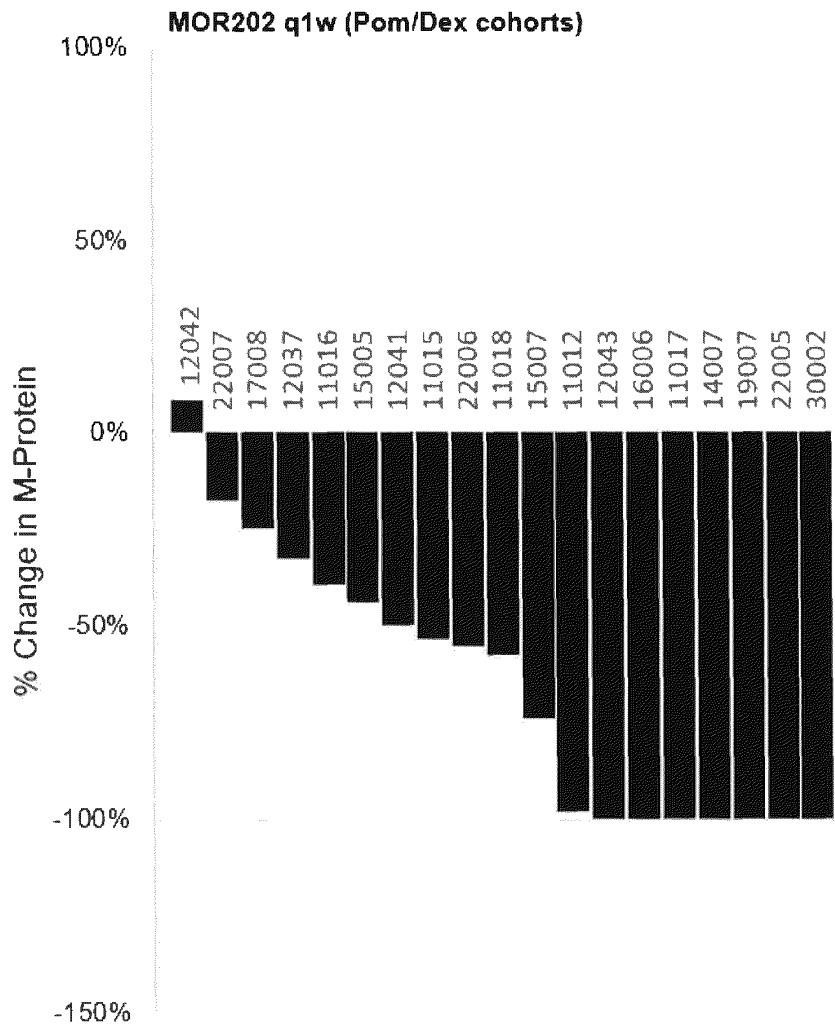


FIGURE 10

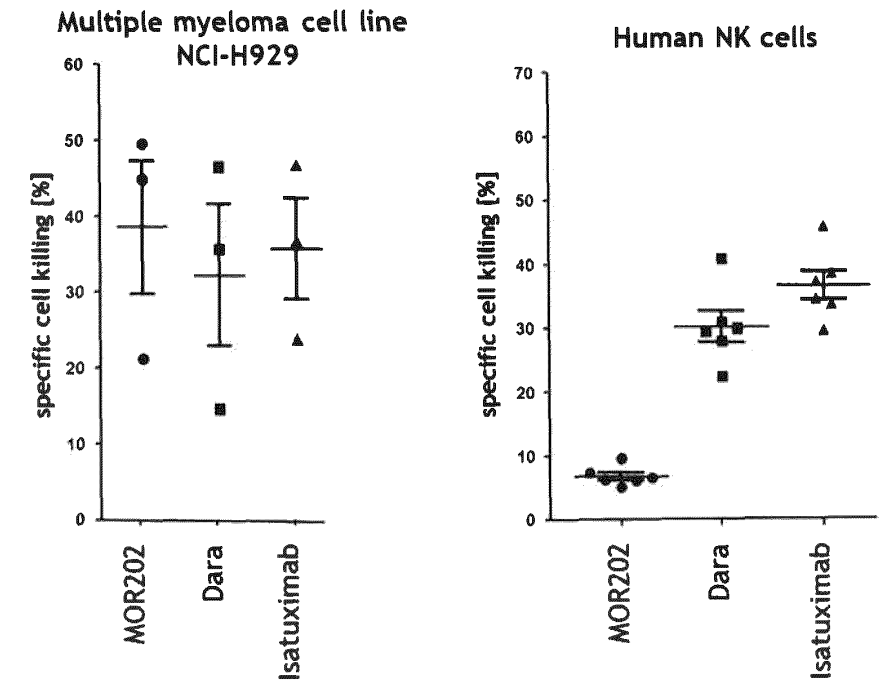


FIGURE 11

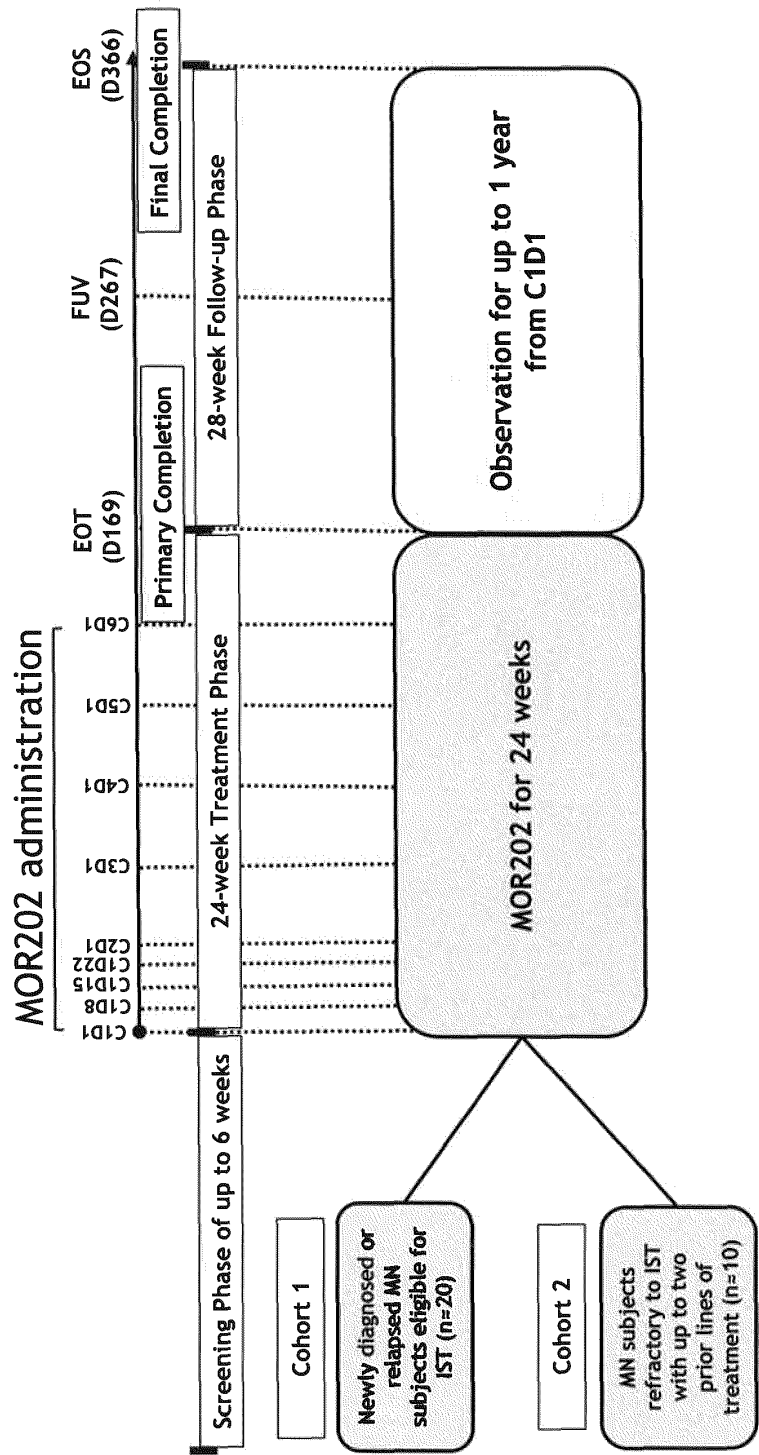


Figure 12

Examples of SLE Autoantibodies that Target Nuclear Antigens		Prevalence in SLE
Target of Autoantibody		
Antinuclear antibodies (ANA)		95 - 100%
Nucleosomes Structures		50 - 90%
Deoxyribonucleic acid (DNA)		40 - 90%
Telomeres		50 - 96%
Nucleosides, nucleotides		20 - 80%
Histones (H): (H2A-H2B)-DNAcomplexH1, H2A, H2B, H3, H4		20 - 90%
DNA polymerase alpha		2 - 3%
Ku		10 - 40%
Poly(ADP-ribose) polymerase (PARP)		35 - 47%
Poly(ADP-ribose)		42 - 73%
High mobility group protein HMG17		35%
DEK oncoprotein		10 - 25%
Centromere proteins CENP-A, CENP-B		
Ro (SS-A)		24 - 60%
La (SS-B)		6 - 35%
Nuclear poly(A) polymerase (polynucleotideadenyltransferase)		25 - 60%
Nucleolar RNA helicase (Gu) protein		18%
SR proteins SRp20, SRp30a, SRp30b, SRp40, SRp55, SRp75		50 - 52%
Alu RNA-protein complex		14%
Small nuclear ribonucleoprotein particles (snRNP)		10 - 55%
Heterogeneous nuclear ribonucleoprotein particles (hnRNP)		9 - 40%
Nucleolin		17 - 64%
Interferon-inducible protein IFI 16		29%
Mitotic spindle apparatus:		
Type 1 nuclear mitotic apparatus protein (NuMA-1, MA-I)		2%
Spindle kinesin-like protein HsEg5 (NuMA-2, MA-II)		5 - 6%
Kl-67		3 - 33%
p53		26 - 32%
c-myc oncogene product		35%
Nuclear lamins B-type lamins B1 and B2		2 - 10%
Su		17 - 21%
Pro-thymosin alpha		18%

Examples of SLE Autoantibodies to Cell Membrane Antigens		Prevalence in SLE
Target of Autoantibody		
CD45		25%
CD4		17%
Gangliosides (Gang) GM1, GD1a, GD1b, GT1b Galactocerebrosides		15 - 63%
Cell membrane associated DNA (cmDNA)		66%
Lipocortin-1		23 - 32%
Beta 2-microglobulin		40 - 70%

Examples of SLE Autoantibodies to Matrix Protein Antigens		Prevalence in SLE
Target of Autoantibody		
Collagen (C) type I, II, III, IV, V, VI		
CI		85%
CII		15-60%
CIII		44%
CIV		15-85%
CV		70%
CVI		15%

Examples of SLE Autoantibodies to Plasma Protein Antigens		Prevalence in SLE
Target of Autoantibody		
Collagen-like region of C1q		30 - 50%
Erythropoietin (EPO)		9 - 29%
Calreticulin		40 - 50%
Rheumatoid factors (RF)		5 - 30%

Examples of SLE Autoantibodies to Phospholipid-Associated Antigens		Prevalence in SLE
Target of Autoantibody		
Lupus anticoagulant (LAC)		20 - 40%
cardiolipin (CL)		53%
phosphatidylinositol (PI)		24%
phosphatidylserine (PS)		32%
phosphatidate (PT)		28%
Zwitterionic phospholipids		
phosphatidylethanolamine (PE)		5 - 17%
phosphatidylcholine (PC)		0 - 17%
platelet activating factor (PAF)		30 - 34%
Beta2-glycoprotein I (beta2GPI)		17 - 49%
Prothrombin (PT, factor II)		28 - 40%
Annexins (Anx) Anx IV		15 - 22%
Anx V (placental anticoagulant protein I)		30%
Anx XI [Calycin associated protein (CAP-50)]		2 - 8%
Thrombomodulin		10 - 30%
Factor XII		14 - 50%
Tissue type plasminogen activator (t-PA)		26%
Thromboplastin (tissue factor)		35%
Oxidized low-density lipoprotein (ox-LDL)		22 - 53%
Malonaldehyde (MDA)- modified lipoprotein (a) (MDA-Lp[a])		40 - 42%
Lysophosphatidylcholine (LPC)		9 - 29%

Examples of SLE Autoantibodies to Nervous System Antigens		Prevalence in SLE
Target of Autoantibody		
Nervous system (neuronal antibodies)		33 - 75%
gangliosides, galactocerebrosides		
ribosomal P protein		
neurofilaments		

Examples of SLE Autoantibodies that Target Blood Cells		Prevalence in SLE
Target of Autoantibody		
Platelets		10 - 62%
Glycoprotein (GP) IIb-IIIa		
GPIIb-IX		
CD36 (GPIV)		
Antineutrophil cytoplasmic antibodies (ANCA)		
proteinase 3 (PR3) ANCA with perinuclear staining (pANCA)		
myeloperoxidase (MPO)		
Red blood cells (RBC) "warm" autoantibodies (WA)		10 - 50%

Examples of SLE Autoantibodies that Target Cytoplasmic Antigens		Prevalence in SLE
Target of Autoantibody		
Outer ring subunit HC9(alpha3) of 20S proteasome		58%
Ribosomal P proteins (P0, P1, P2)		8 - 42%
Ribosomal protein S10		11 - 40%
Ribosomal protein L12		3 - 28%
28S ribosomal RNA (rRNA)		15%
Cytoskeletal antibodies		
actin		9 - 26%
fimbrin T- and L- isoforms		33 - 49%
alpha-fodrin		2 - 7%
Intermediate filaments		
vimentin		36 - 75%
neurofilaments (NF)		21 - 29%
cytokeratins (CK)		50%
Calpastatin		27%
Follistatin-related protein		10%
Heat-shock protein 90 (HSP 90)		25 - 50%
FK506 binding protein 12		39%
Carbonic anhydrase (CA) I, II		29 - 43%
Pyruvate dehydrogenase (mitochondrial antibodies of M2 type)		17%
Pro-filaggrin (perinuclear factor)		46%

modified from Sherer Y et al Semin Arthritis Rheum. 2004 Oct;34(2):501-37.