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(54) Title: ANTI-CD22 SINGLE DOMAIN ANTIBODIES AND THERAPEUTIC CONSTRUCTS

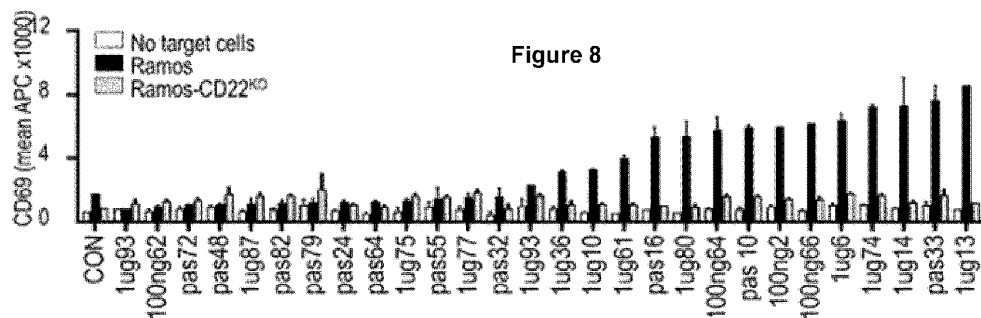


Figure 8

(57) Abstract: Herein are provided anti-CD22 single domain antibodies (sdAb) prepared by immunizing a llama with the extracellular domain of the predominant human CD22 isoform. By constructing a library of the heavy chain repertoire generated, VHH antibodies specific to the immunogen were isolated. The 27 example antibodies initially produced comprise CDR1, CDR2, and CDR3 sequences corresponding, respectively to SEQNOs: 1-3, 4-6, 7-9, 10-12, 13-15, 16-18, 19-21, 22-24, 25-27, 28-30, 31-33, 34-36, 37-39, 40-42, 43-45, 46-48, 49-51, 52-54, 55-57, 58-60, 61-63, 64-66, 67-69, 70-72, 73-75, 75-78, and 79-81; and related sequences. Also provided are multivalent antibodies comprising any one of the sdAbs, including bispecific T-cell engagers, bispecific killer cell engagers (BiKEs), and trispecific killer cell engagers (TriKEs). Also described are chimeric antigen receptors (CARs) for CAR-T therapy comprising any one of the aforementioned sdAbs. Uses of these molecules in the treatment of cancer are also described.

[Continued on next page]

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