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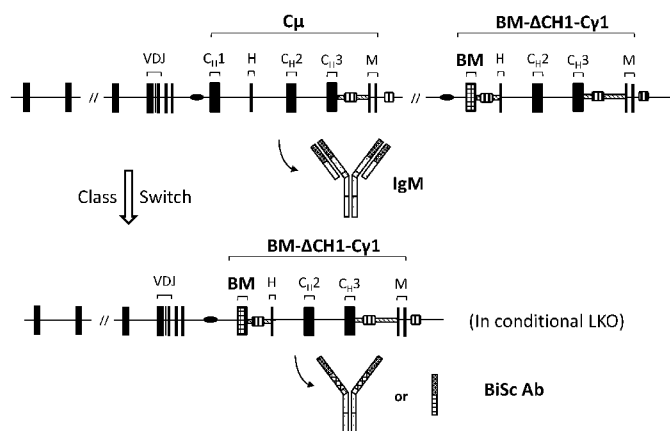
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FIGURE 9



(57) Abstract: The invention relates, in one aspect, generally to novel concept of guided selection of antibody variable domains, combination and expression entirely in vivo. An application is to produce multivalent polypeptides. The present invention relates to multivalent (eg, multispecific) antibodies, antibody chains and polypeptides, as well as heavy chain-only antibodies (H2 antibodies) that are devoid of light chains. The invention further relates to the selection, maturation and production of these in vivo in non-human vertebrates and non-human vertebrate cells. To this end the invention also relates to such non-human vertebrates and cells. The invention also relates to the provision of means to produce and select heavy chain-only antibodies and heavy chains comprising variable domains that have undergone affinity maturation.