

ABSTRACT



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TRANSGENIC ANIMALS FOR PRODUCING SPECIFIC ISOTYPES OF HUMAN
5 ANTIBODIES VIA NON-COGNATE SWITCH REGIONS

The present invention provides fully human antibodies in a transgenic animal of a
desired isotype in response to immunization with virtually any desired antigen. The
human immunoglobulin heavy chain transgene in the foregoing animals comprises a
10 human constant region gene segment comprising exons encoding the desired heavy
chain isotype, operably linked to switch segments from a constant region of a different
heavy chain isotype, i.e., a non-cognate switch region. Said additional constant region
segment comprises a switch region and human constant region coding segment, wherein
the constant region coding segment is operably linked to a switch region that is not
15 normally associated with, i.e., a non-cognate switch region. In the transgenes of the
invention, the non-cognate switch region may be a switch region from a different
species than the constant region coding segment. The switch region and membrane
exons of the invention may comprise a human gamma-2 constant region and the
secreted constant region exons are from a human gamma-1 or a human gamma-4
20 constant region.

Fig. 1