MODIFIED ~~CANINISED~~ ANTIBODIES AND METHOD FOR THE PRODUCTION OF SAME

Field of the Invention

The present invention relates to methods for producing non-immunogenic binding agents, in particular immunoglobulins and fragments thereof, which can be used in therapeutic methods. In particular, the methods allow a donor immunoglobulin to be modified such that it can be administered to a target species with minimal risk of neutralising antibodies being raised there against. The invention further extends to immunoglobulins produced by said methods and to their use in therapy.

Background to the Invention

Advances in recombinant DNA technology have resulted in a variety of proteins being developed for pharmaceutical applications. This has resulted in a number of protein-based drugs, which may be more generally referred to as biologics, being the subject of clinical trials or market approval. Due to their inherent properties and structures, protein-based drugs are significantly larger and more complex than more traditional small molecule organic and inorganic based molecules. In particular, the folded tertiary structure of the protein is essential to its biological function.

Antibodies are one family of proteins that are being widely developed and used in therapeutic applications in man. The popularity of antibodies in therapeutic applications has been due to their versatility in being able to specifically target virtually any desired target molecule. The majority of protein based therapeutic products are monoclonal antibodies. However one significant drawback associated with the use of monoclonal antibody-based therapies is the production of neutralising antibodies against the therapeutic monoclonal antibody when administered to a subject. These neutralising antibodies result from the immune system of the subject recognising as foreign sequences of amino acids that are present in the administered monoclonal antibody. As a result, an immune response