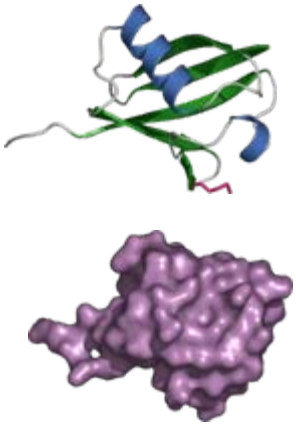
Genomic Antibody Technology™
Application Note

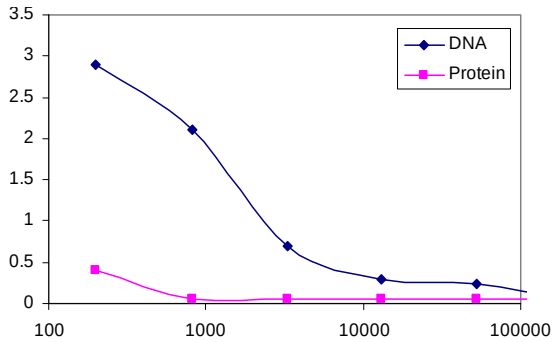
SUCCESSFUL IMMUNOPRECIPITATION FOLLOWING PRODUCTION OF AN ANTI-HUMAN UBIQUITIN ANTIBODY

The development of antibodies against highly conserved proteins is a major challenge to scientists. Due to target homology with native proteins in the host animal, successfully eliciting a robust immune response adequate for quality reagent production is exceedingly difficult. Ubiquitin consists of 76 amino acids and has a molecular mass of about 8500 Da. It is highly conserved among eukaryotic species: human and yeast ubiquitin share 96% sequence homology. Ubiquitin is implicated in many human disease pathways.

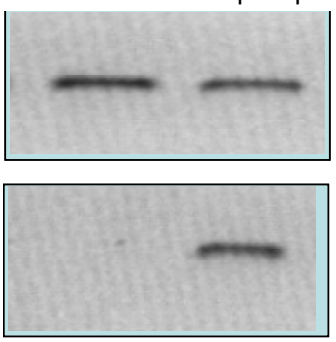


By utilizing proprietary plasmid design in the Genomic Antibody Technology™ platform, scientists at Strategic Diagnostics produced a specific anti-human ubiquitin antibody in a mouse host. Engineered genetic adjuvants in the plasmid were able to mobilize the mouse's immune system to react strongly to the internally expressed recombinant protein. This "breaking of tolerance" allows the production of specific reagents to traditionally elusive proteins.

ELISA comparing Genomic Antibody Technology™ generated anti-Ubiquitin Ab vs. protein immunization



Chromatin Immunoprecipitation



Genomic Antibody Technology™ Ab

Ab from protein antigen