



# Genomic Antibody Technology™ Application Note

## PRODUCTION OF SELECTIVE ANTI-RHESUS CD40 ANTISERA FROM GENETIC SEQUENCE

SDI collaborated with researchers using rhesus macaques as a model organism for HIV research. In previous studies, the commercially available anti-human CD40 antibody gave unreliable data in the macaque model, even though the human protein sequence is 93% homologous.

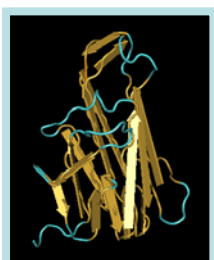
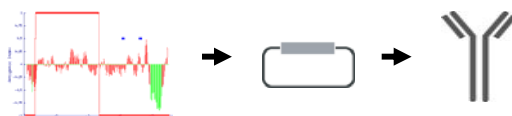


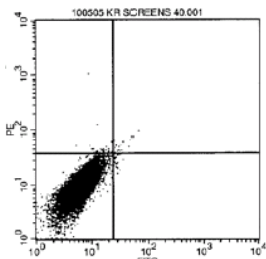
Image courtesy of the National Library of Medicine

hCD40	MVRLPLQCVLWGCLLTAVHPEPTACREKQYLINSQCCSLCQPQKLVSDCTEFTETECL 60
rhCD40	MVRLPLQCVLWGCLLTAVYPEPTACREKQYLINSQCCSLCQPQKLVSDCTEFTETECL 60
	*****
hCD40	PCGESEFLDTWRETHCHQHXYCDPNLGLRVQKGTSETDTICTCEEHCTSEACESCV 120
rhCD40	PCGESEFLDTWRETRCHQHXYCDPNLGLRVQKGTSETDTICTCEEGLHCHSESCESC 120
	** ***** ** **
hCD40	LHRSCSPGFVKQIATGVSDTICEPCPVGFFSNVSSAFERKHPWTSCEKDLVVQAGTN 180
rhCD40	LHRSCSPGFVKQIATGVSDTICEPCPVGFFSNVSSAFERKHPWTSCEKDLVVQAGTN 180
	**** *****
hCD40	KTDVVCQPDRRLRALVVIPIIFGILFALL-VLVFIKKVAKKPTMK 225
rhCD40	KTDVVCQPDRQALVVIPIICLGILFVILLVLVFIKKVAKKPNND 226
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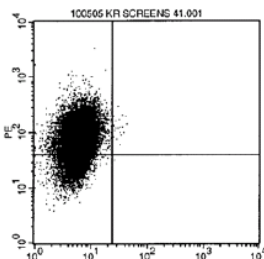
Utilizing proprietary bioinformatic algorithms, Strategic Diagnostics' scientists selected a 100 amino acid region of the rhesus CD40 protein to use as the target sequence for SDI's proprietary Genomic Antibody Technology™.



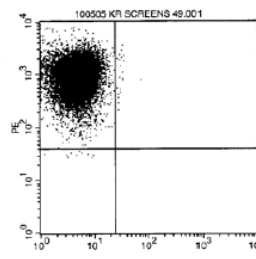
Polyclonal mouse sera was delivered in 76 days. The antibody was highly successful in selective binding to rhesus B-cells in FACS analysis.



Negative control  
Ab



Anti-human CD40  
Ab



Anti-rhesus CD40  
Ab from Genomic  
Antibody  
Technology™