TABLE 43

Mouse Antibody Responses to Human-Use Vaccines Administered by TCI

Immunizing Antigen(s) for TCI	Antibody Specificity	TCI (ELISA Units)	IM/Alum (ELISA Units)
CT + TT + DT	Anti-DT	135,792 (86,552-146-759)	85,493 (24,675-238,904)
CT + TT + DT	Anti-TT	30,051 (13,863-53,174)	94,544 (74,928-113,408)
CT + TT + DT	Diphtheria toxin neutralization	404 (22-2816)	1,226 (352-11,264)
LT + DT	Anti-DT	4976 (669-46,909)	ND
CT + HIV p55 gag	Anti-p55	10,630 (1063-52,597)	ND
CT + Killed Rabies Virus	Anti-G protein	1.03 (IU/ml) (0.31-2.77)	7.54 (IU/ml) (3.31-17.47)

ND = not done. ELISA units shown as geometric mean and range in brackets.

Example 45

Human Langerhans Cell Activation

[0292] In two volunteers, the site of immunization and the contralateral unimmunized arm were biopsied, one at 24 hours post-immunization and one at 48 hours after the second immunization. Hematoxylin and eosin (H&E) staining of specimens confirmed the clinical findings suggesting that no inflammation was seen after immunization. Although routine histologic sections were unremarkable, Langerhans cells (LCs) visualized using anti-CD1a staining of specimens from the site of immunization demonstrated greatly enlarged cell bodies but otherwise normal numbers of cells when compared to the control biopsies from the opposite arm, both at 24 and 48 hours. Similar findings were made using anti-HLA-DR and anti-S-100 to visualize LCs. Morphology of LCs in transcutaneously immunized skin was similar in appearance to tonsillar crypt LCs that are thought to be chronically activated by lipopolysaccharides from the flora of the mouth.

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