



Evaluation of Prophylactic Efficacy of Human Anti-Rabies Monoclonal Antibodies in Mouse Model

The efficacy of two novel human recombinant anti-rabies monoclonal antibodies in neutralizing street viruses in mouse model will be reported at the XVI International Conference of Rabies in Americas on October 16-21, 2005 in Ottawa , Canada by Chakravarthy R. Ch, Koon Y. Pak*, Jeffrey Mattis*, and Zhen F. Fu. Department of Pathology, University of Georgia, Athens, GA 30602, *Molecular Targeting Technologies, West Chester, PA 19382

Abstract

To provide a cost-effective and safe replacement for currently used human rabies immunoglobulin (HRIG), human anti- rabies monoclonal antibodies (huMAbs) were developed. In the present study, we evaluated the prophylactic efficacy, half-lives, and interference with vaccination of two huMAbs SO57 and SOJB Mabs individually, in a mouse model when compared with conventional HRIG. Potency test revealed that SO57 and SOJB protected 80% of mice against challenge infection when given 20 IU whereas only 50% survived with HRIG at the same dose. Serum half-lives were found to be 16 days for SO57 (IgG1); 11 days for SOJB (IgG3) and 8 days for HRIG (polyclonal). Like HRIG, huMAbs interfered with the production of active immune responses after vaccination, however, the level of interference is comparable to or lower than HRIG. Thus our studies indicate that huMAbs have biological functions comparable to or better than HRIG and could provide an alternative to HRIG in post-exposure treatment.

Contact: Jeffrey Mattis, PhD, jmattis@mtarget.com, 610.738.7938