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Title: The effect of PcrV antibody to multidrug resistant pseudomonas aeruginosa induced cytoxicity

Dr. Qin 16382 Wang wangqin19851125@126.com [1], Dr. Huayin 16383 Li li.huayin@zs-hospital.sh.cn MD [1], Dr. Yuanlin 16384 Song song.yuanlin@zs-hospital.sh.cn MD [1] and Prof. Dr Chunxue 16385 Bai bai.chunxue@zs-hospital.sh.cn MD [1]. [1] Pulmonary Department, Zhongshan Hospital, Fudan University, Shanghai, China, 200032 .

Body: Pseudomonas aeruginosa is an important nosocomial pathogens. Mab166, a murine monoclonal antibody against PcrV, has demonstrated efficacy against P. aeruginosa infection. However, evidences mainly come from laboratory strains. The expression level of type III secretion system of multidrug resistant strains is still unknown, and whether Mab166 can protect multidrug resistant strains induced infection is also unknown. So, we conduct a study to solve this problem. We collected 47 strains including 24 mutlisdrug resistant strains, then analyze the expression of type III secretion system in two groups, we found that there are no significant differences between two groups, which was shown in figure 1.

The protective effect of Mab166 against each strain was determined using BEAS-2B cell cytotoxicity assay, we found that Mab166 can reduced P. aeruginsa induced cytoxicity, which was shown in figure 2.

These data suggest that the type III secretion expression level in multidrug reisitant strains is comparable to susceptible strains, anti-PcrV antibody can protect multidrug resistant P. aeruginsa induced cytoxicity, so we conclude that PcrV can be a treating target.