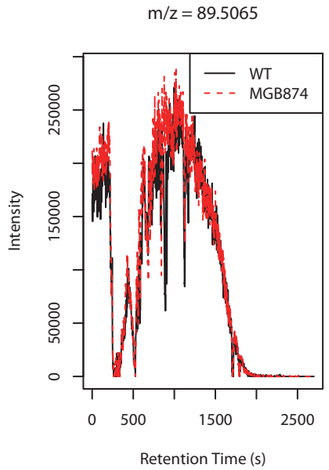

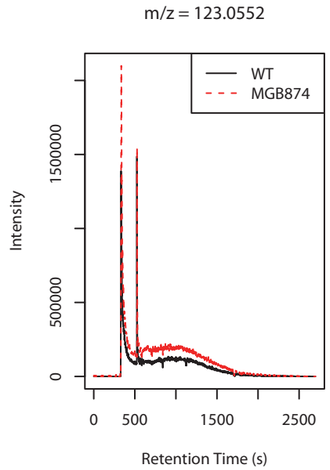

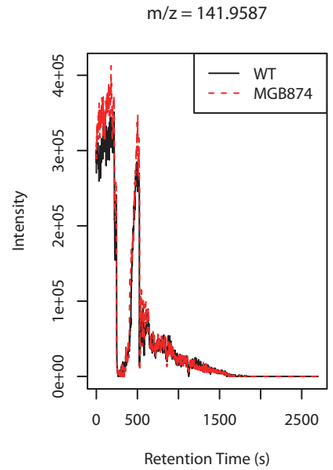

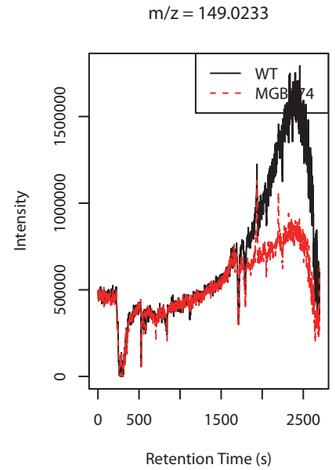

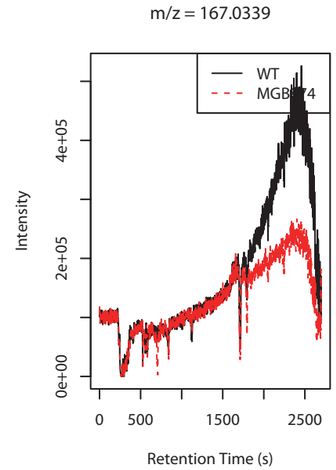

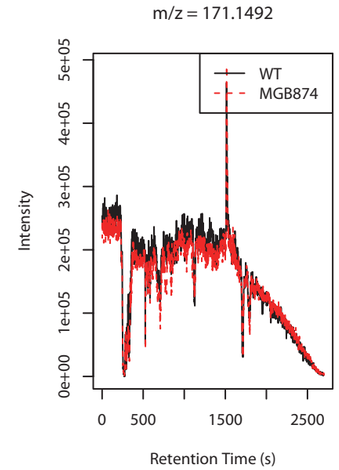

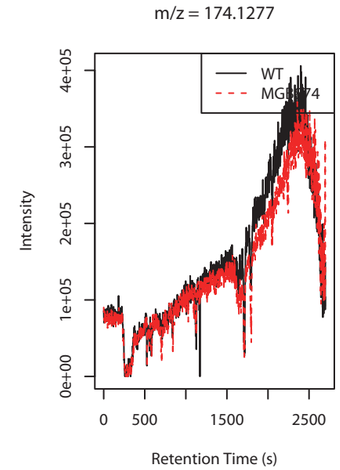

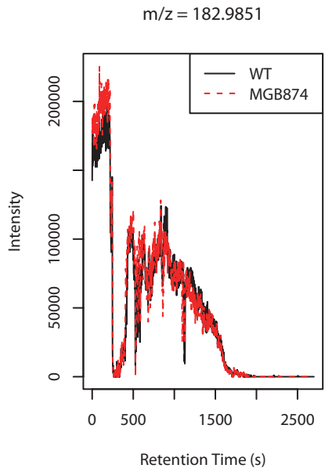

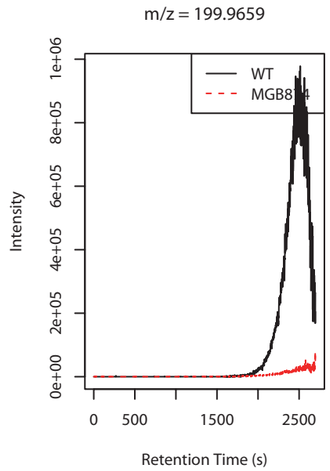

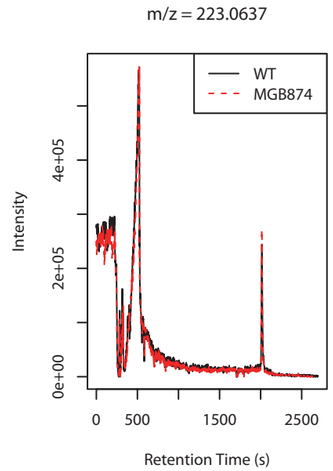

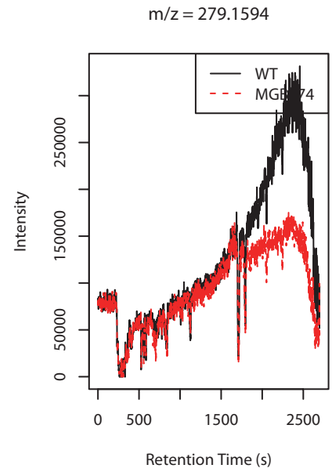

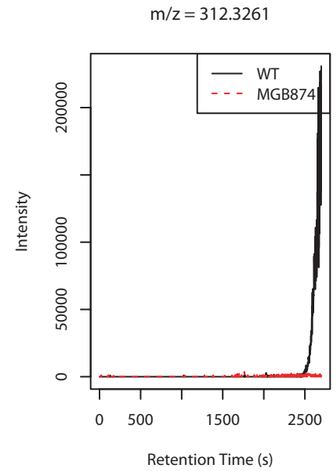

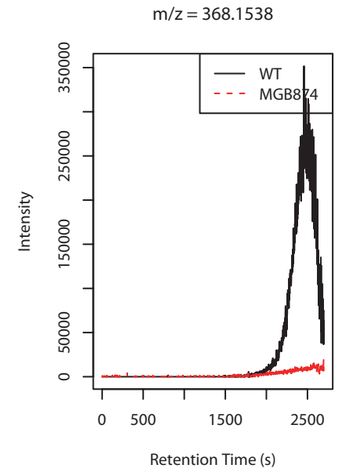

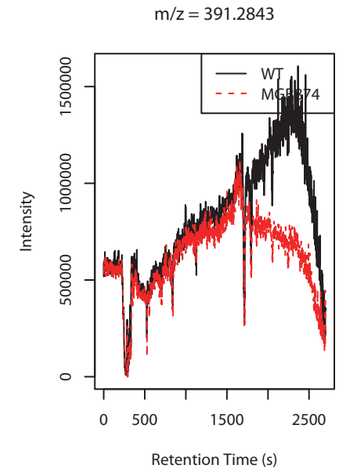

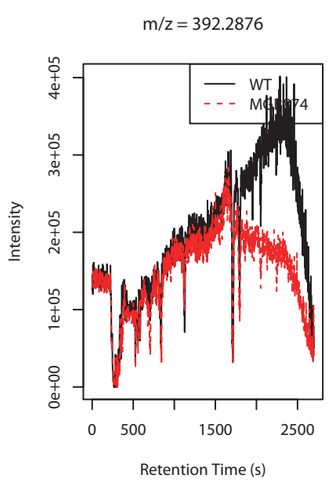

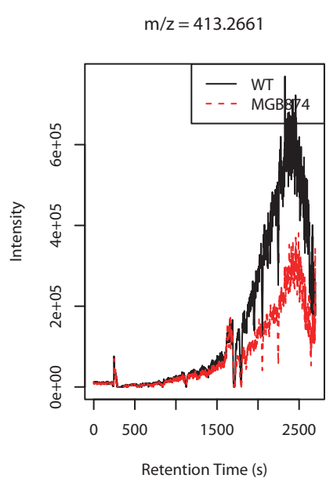

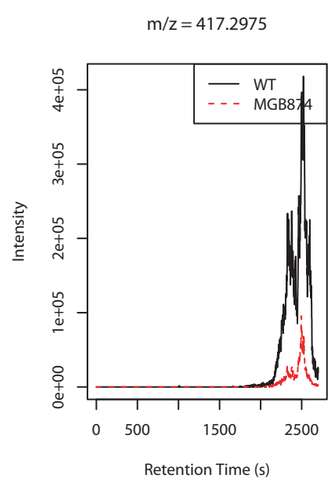

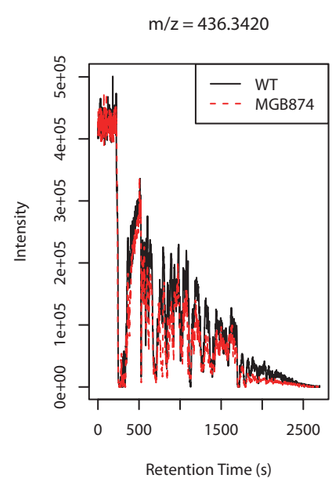

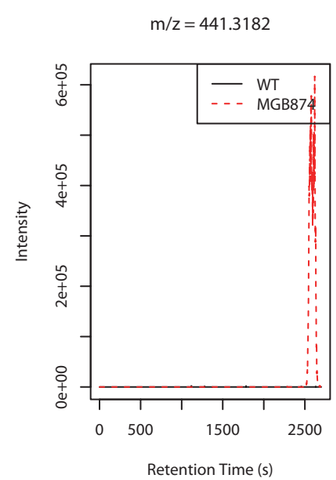

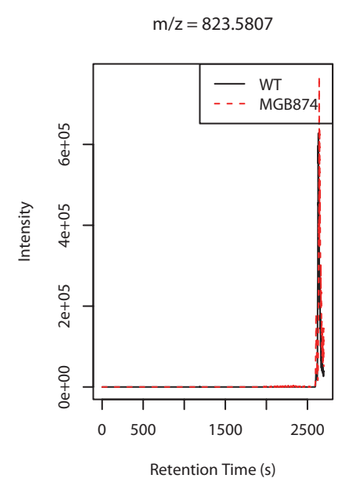

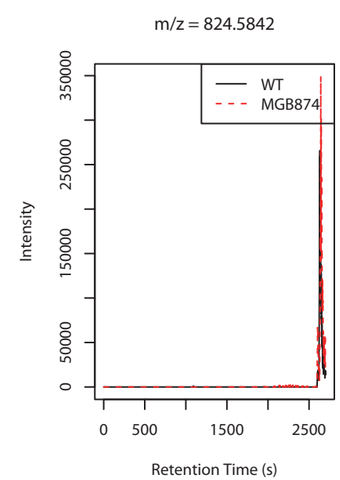

Takahashi et al. Additional file 3