$$\begin{bmatrix} a \mid b \rangle \\ a \mid b \rangle \\ a \mid b \rangle \\ \begin{bmatrix} a \mid b \rangle \\ \hline p_p \mid z \end{pmatrix} \\ \begin{bmatrix} z \mid \frac{X^X}{p_p} \end{pmatrix} z$$