

$$\begin{array}{c}
 C^* \\
 \downarrow \lambda^{-1} \\
 I \otimes C^* \xrightarrow{\eta} (C^* \otimes C) \otimes C^* \xrightarrow{\alpha} C \otimes (C \otimes C^*) \xrightarrow{\epsilon} C^* \otimes I \\
 \uparrow \rho \\
 C^*
 \end{array}$$