

$$\begin{array}{ccc}
 A \otimes (1 \otimes B) & \xrightarrow{\alpha_{A,I,B}} & (A \otimes 1) \otimes B \\
 & \searrow 1_A \otimes \lambda_B & \swarrow \rho_A \otimes 1_B \\
 & A \otimes B &
 \end{array}$$