

$$\begin{array}{ccccc}
 \mathrm{Hom}(B, B) \otimes \mathrm{Hom}(A, B) & \xrightarrow{\circ_{A, B, B}} & \mathrm{Hom}(A, B) & \xleftarrow{\circ_{A, A, B}} & \mathrm{Hom}(A, B) \otimes \mathrm{Hom}(A, A) \\
 \uparrow i_B \otimes 1 & \nearrow \lambda & & \nwarrow \rho & \uparrow 1 \otimes i_A \\
 I \otimes \mathrm{Hom}(A, B) & & & & \mathrm{Hom}(A, B) \otimes I
 \end{array}$$