

$$\text{Mor}_{\mathcal{A}}(b, c) \otimes \text{Mor}_{\mathcal{A}}(a, b) \xrightarrow{m_{abc}} \text{Mor}_{\mathcal{A}}(a, c)$$

$$\begin{array}{ccc}
 & \circlearrowleft & \\
 F_{bc} \otimes F_{ab} \downarrow & & \downarrow F_{ac} \\
 & \circlearrowright & \\
 \text{Mor}_{\mathcal{A}'}(F(b), F(c)) \otimes \text{Mor}_{\mathcal{A}'}(F(a), F(b)) & \xrightarrow{m'_{F(a)F(b)F(c)}} & \text{Mor}_{\mathcal{A}'}(F(a), F(c))
 \end{array}$$