$$\begin{array}{ccccc}
\mathrm{Hom}_{\mathbf{C}}(X;Y) \otimes \mathrm{Hom}_{\mathbf{C}}(Y;Y) & \xrightarrow{m_{X,Y,Y}} & \mathrm{Hom}_{\mathbf{C}}(X;Y) & \xleftarrow{m_{X,X,Y}} & \mathrm{Hom}_{\mathbf{C}}(X;X) \otimes \mathrm{Hom}_{\mathbf{C}}(X;Y) \\
\uparrow \scriptstyle{\mathrm{id}_{\mathrm{Hom}_{\mathbf{C}}(X;Y)} \otimes j_Y} & & & & \uparrow \scriptstyle{j_X \otimes \mathrm{id}_{\mathrm{Hom}_{\mathbf{C}}(X;Y)}} \\
\mathrm{Hom}_{\mathbf{C}}(X;Y) \otimes \mathbf{1} & & & & \mathbf{1} \otimes \mathrm{Hom}_{\mathbf{C}}(X;Y)
\end{array}$$

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