$$\begin{array}{ccc} c_1 \otimes c_2 & \xrightarrow{f_1 \otimes f_2} & d_1 \otimes d_2 \\ \downarrow \sigma & & \downarrow \sigma \\ c_2 \otimes c_1 & \xrightarrow{f_2 \otimes f_1} & d_2 \otimes d_1 \end{array}$$