

$$\begin{array}{ccccccc}
QX & \xrightarrow{Qf} & QY & \xrightarrow{Qg} & QZ & \xrightarrow{\ell(\delta)} & (QX)[1] \\
\downarrow Q\alpha & & \downarrow Q\beta & & \downarrow & & \downarrow Q(\alpha)[1] \\
QX' & \xrightarrow{Qf'} & QY' & \xrightarrow{Qg'} & QZ' & \xrightarrow{\ell(\delta')} & (QX')[1]
\end{array}$$