

$$\begin{array}{c}
 \text{id}_Y \otimes \text{coev} \\
 \xrightarrow{\quad} Y \otimes X \otimes X^v \\
 \xrightarrow{\quad} Z \otimes X \otimes X^v \otimes X^v \\
 \xrightarrow{\quad} Z \otimes X^v \otimes X
 \end{array}$$