

$$\begin{array}{ccc}
 (F(x) \otimes_{\mathbf{D}} F(y)) \otimes_{\mathbf{D}} F(z) & \xrightarrow{\text{as}_{F(x), F(y), F(z)}^{\mathbf{D}}} & F(x) \otimes_{\mathbf{D}} (F(y) \otimes_{\mathbf{D}} F(z)) \\
 \downarrow & & \downarrow \\
 F(x \otimes_{\mathbf{C}} y) \otimes_{\mathbf{D}} F(z) & & F(x) \otimes_{\mathbf{D}} F(y \otimes_{\mathbf{C}} z) \\
 \downarrow & & \downarrow \\
 F((x \otimes_{\mathbf{C}} y) \otimes_{\mathbf{C}} z) & \xrightarrow{F(\text{as}_{x, y, z}^{\mathbf{C}})} & F(x \otimes_{\mathbf{C}} (y \otimes_{\mathbf{C}} z))
 \end{array}$$