$$F(B,C) \xrightarrow{\eta_{(B,C)}} G(B,C)$$

$$F(f,1_C) \downarrow \qquad \qquad \downarrow^{G(f,1_C)}$$

$$F(B',C) \xrightarrow{\eta_{(B',C)}} G(B',C)$$

$$F(B',C) \xrightarrow{\eta_{(B',C)}} G(B',C)$$

$$F(1_{B'},g) \downarrow \qquad \qquad \downarrow^{G(1_{B'},g)}$$

$$F(B',C') \xrightarrow{\eta_{(B',C')}} G(B',C')$$