$$
\begin{tikzcd}
\langle\langle a, b\rangle, c\rangle \arrow[r, mapsto] \arrow[ddd, bend right, mapsto] & \langle a, \langle b, c\rangle\rangle \arrow[ddd, bend left, mapsto] \\
(A \times B) \times C \arrow[r, "\alpha_{A,B,C}"] \arrow[d, "(f \times g) \times h"'] & A \times (B \times C) \arrow[d, "f \times (g \times h)"] \\
(A' \times B') \times C' \arrow[r, "\alpha_{A',B',C'}"'] & A' \times (B' \times C') \\
\langle\langle f(a), g(b)\rangle, h(c)\rangle & \langle f(a), \langle g(b), h(c)\rangle\rangle \arrow[l, mapsto]
\end{tikzcd}
$$