Two-Hadron-Irreducible Qcd Sum Rule for Pentaquark Baryon
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pentaquark correlations function include two-hadron-reducible contributions, which
are given by convolution of baryon and meson correlation functions and have noth-
ing to do with pentaquark. We show that the two-hadron- reducible contributions
are large in the operator product expansion of the correlation functions of three
existing works on the pentaquark. Therefore, it is dangerous to draw a conclusion
from the sum rules using naive pentaquark correlation functions with naive ansatz
for the spectral function under the dispersion integral. Instead, we propose to use
the two-hadron- irreducible correlation function, which is obtained by subtracting
the two-hadron-reducible contribution from the naive correlation function.

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