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**Answer:** Thank you. Yes, we use the dataset that has been published, and we have cited these works in our manuscript. And we have added the description of “All data generated or analyzed during this study are included in this published article.” in the part of “Availability of data and materials”.

3. Research involving human subjects (including human material or human data) that is reported in the manuscript must have been performed with the approval of an appropriate ethics committee. Research carried out on humans must be in compliance with the Helsinki Declaration (http://www.wma.net/en/30publications/10policies/b3/index.html). A statement to this effect must appear in the ‘Ethics approval and consent to participate’ section of the Declarations of the manuscript, including the name of the body which gave approval, with a reference number where appropriate.
 If the need for ethics approval were waived, then please clearly state this, including the name of the ethics committee that provided the exemption, together with the reasons for the waiver, or a reference to the relevant legislation.

**Answer:** Thank you. In our manuscript, we have used the human breast dataset to validate our method. We download this dataset from the website of <https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE2034>. And we have described the website information in the section of “Validation of human breast dataset”.

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Jianxiao Liu