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**Supplementary Figure 1.** Identification of the two molecular subtypes of childhood asthma from the testing dataset. (A) The matrix heat map was clearly separated at k = 2. (B) CDF reaches an approximate maximum value and the clustering analysis results were the most reliable at k = 2. (C) Tracking plot from k = 2-9. The black stripe at the bottom represents the sample, showing the classification of the sample when different values of k are considered, and the blocks of different colors represent different classifications.

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**Supplementary Figure 2.** Single sample gene set enrichment analysis. (A) The abundance of 28 infiltrating immune cell types in childhood asthma patients from the testing dataset. (B) Differential immune cell infiltration between non-asthma and asthma patients in the testing dataset.