



**Figure S2. Stability evaluations of the discriminatory model of the proposed method by  $k$ -fold cross-validations.** The stability of the discriminatory model applied in the proposed DS-scoring scheme was evaluated based on two datasets. **(a)** Evaluations based on Dataset L. **(b)** Evaluations based on Dataset M. In both experiments, only the DS-related homologs were treated as the positive data, while common homologs and non-homologs were used as the negative data.