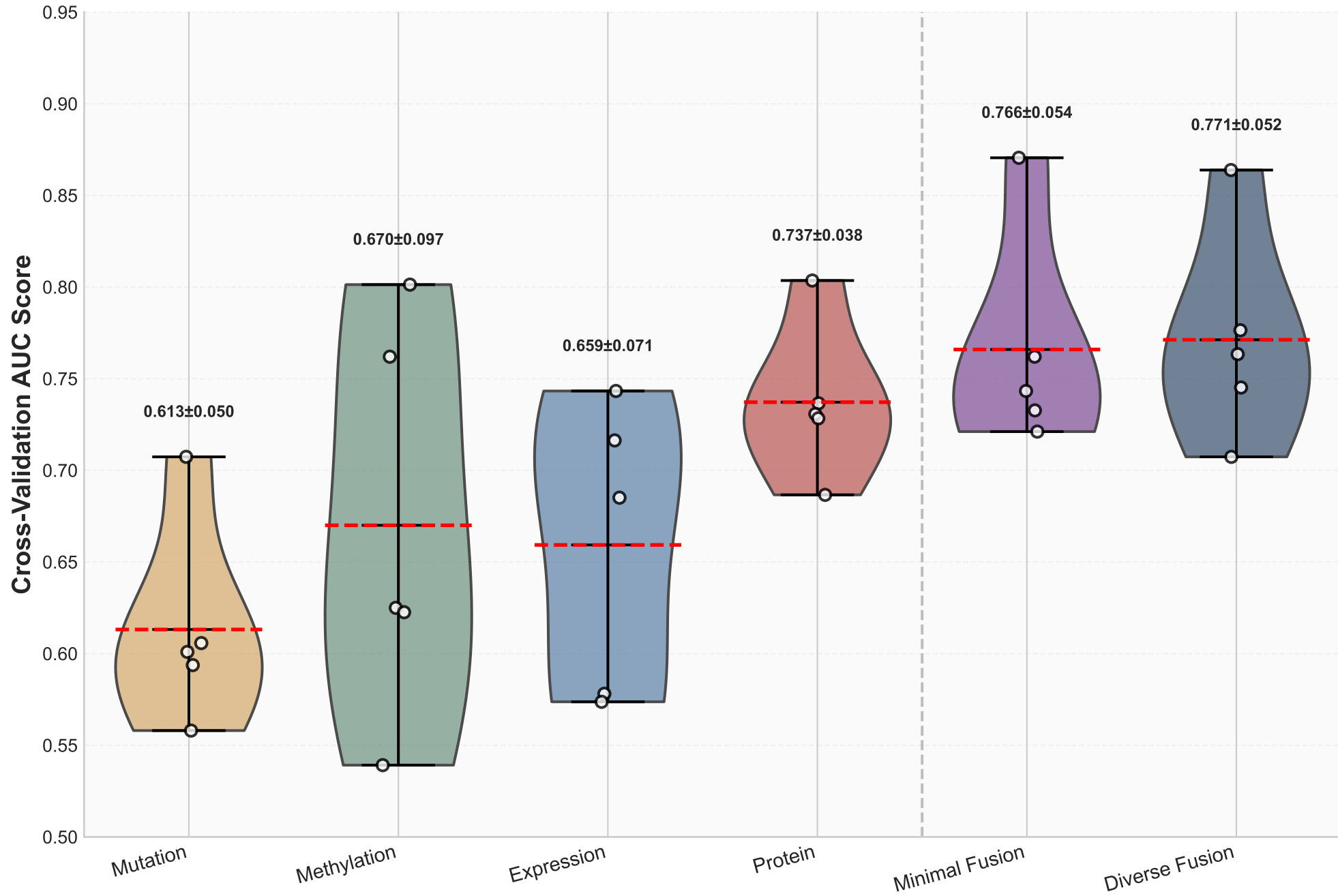


## Cross-Validation Stability Analysis Performance Consistency Across 5 Folds



**Figure 4. Cross-validation stability analysis showing performance consistency across 5 folds. Violin plots reveal that protein modality has the highest and most stable performance among individual modalities ( $0.706 \pm 0.051$ ), while fusion approaches achieve superior and consistent results, with diverse fusion reaching  $0.771 \pm 0.052$  AUC.**