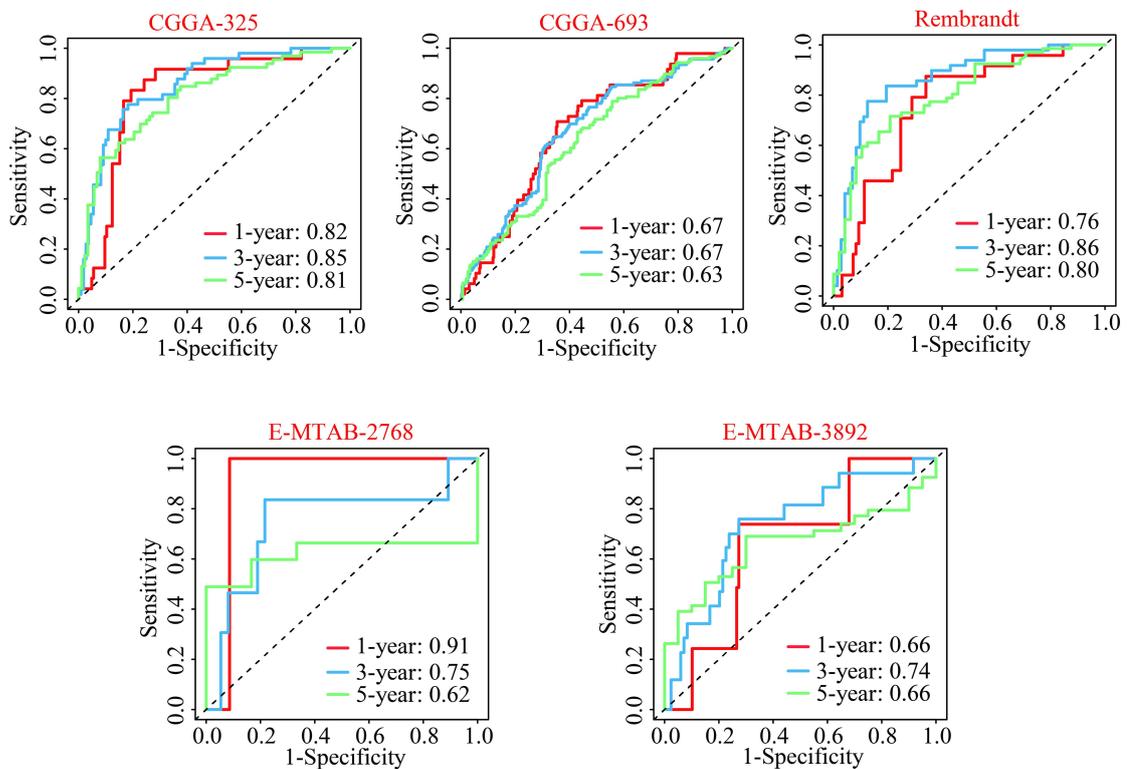


**Figure S1.** The comparison of LASSO, Ridge and Elastic net regressions in the prediction of prognosis for LGGs.



**Figure S2.** The AUC of 1-, 3-, and 5-year OS in CGGA-325, CGGA-693, Rembrandt,

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E-MATB-2768 and E-MATB-3892 datasets, respectively.

## ABI1



**CAB008375**

LGG tissue

**Staining: Medium**

Intensity: Moderate

Quality: > 75%

**CAB008375**

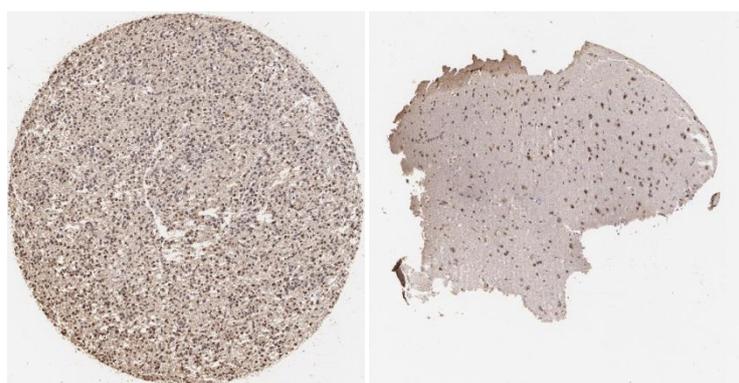
Normal tissue

**Staining: Low**

Intensity: Moderate

Quality: < 25%

## BRCA1



**CAB001946**

LGG tissue

**Staining: Medium**

Intensity: Moderate

Quality: 75% ~ 25%

**CAB001946**

Normal tissue

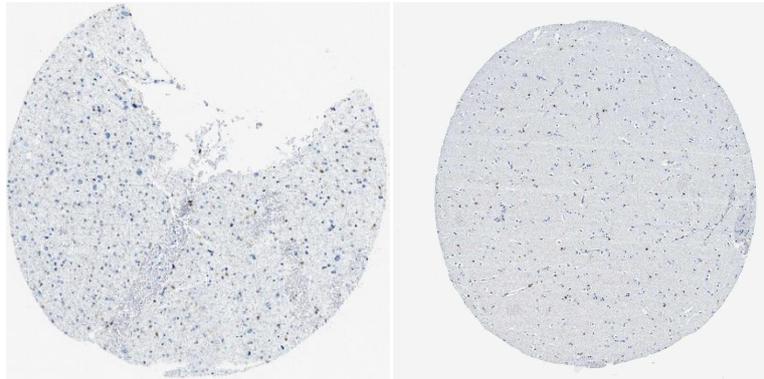
**Staining: Low**

Intensity: Moderate

Quality: < 25%

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## CAPG



**HPA019092**

LGG tissue

**Staining: Low**

Intensity: Moderate

Quality: < 25%

**HPA019092**

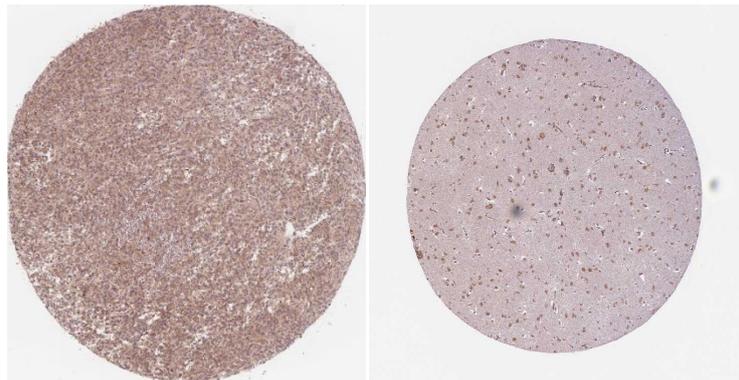
Normal tissue

**Staining: Not detected**

Intensity: Weak

Quality: < 25%

## EIF3D



**HPA066216**

LGG tissue

**Staining: Medium**

Intensity: Moderate

Quality: > 75%

**HPA066216**

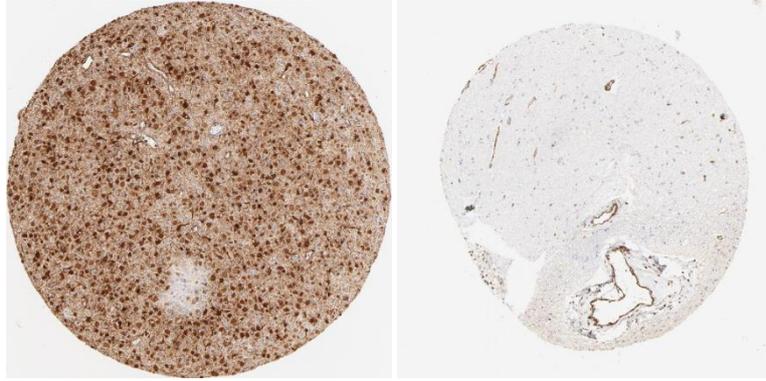
Normal tissue

**Staining: Low**

Intensity: Moderate

Quality: < 25%

# FLNA



**HPA002925**

LGG tissue

**Staining: High**

Intensity: Strong

Quality: > 75%

**HPA002925**

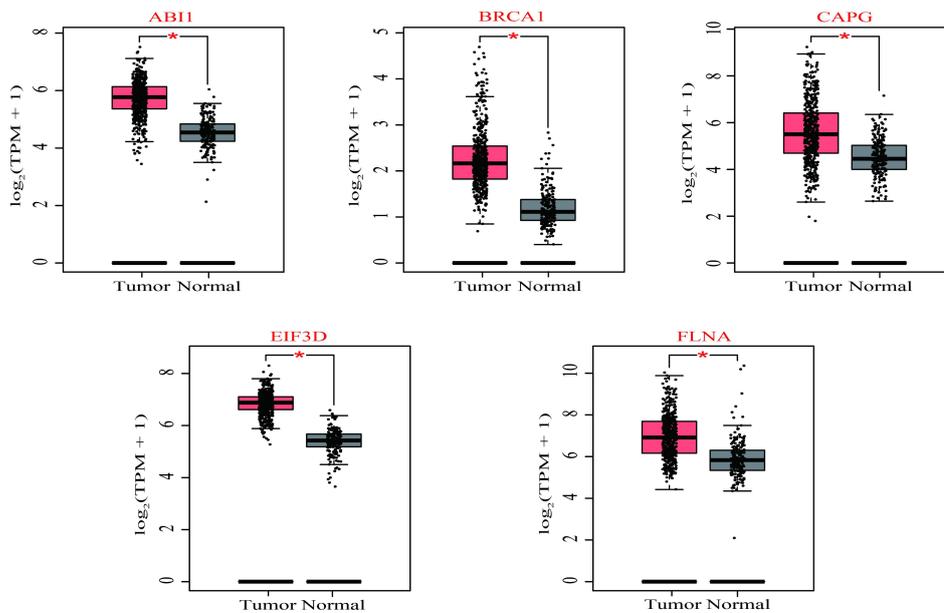
Normal tissue

**Staining: Low**

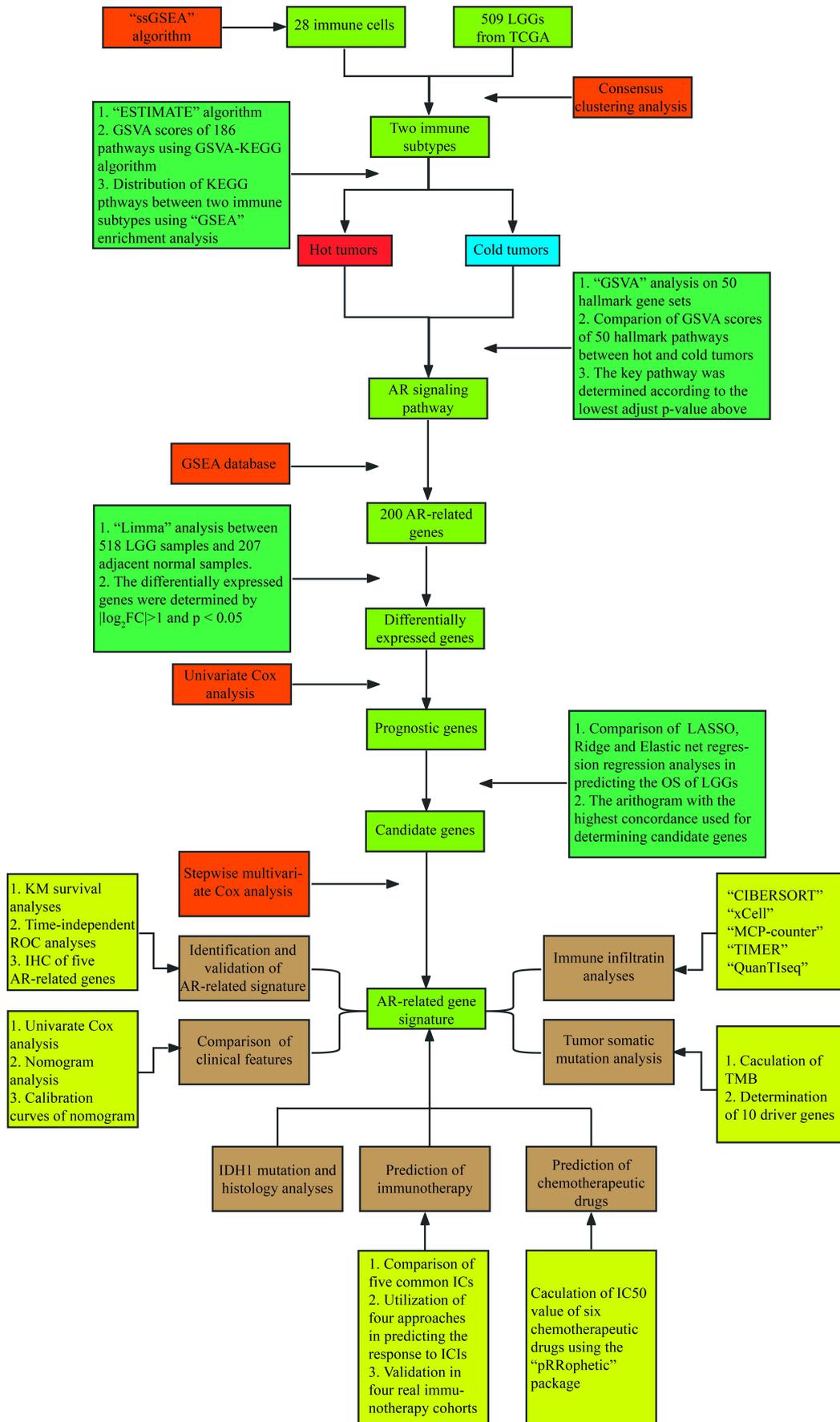
Intensity: Weak

Quality: > 75%

**Figure S3.** The expression of five AR-related genes between LGG and corresponding normal tissues at the protein level.



**Figure S4.** The expression of five AR-related genes between tumor and normal tissues via GEPIA database.



**Figure S5.** The flow chart in this study.