Supplementary Materials

The ITIM-Containing Receptor: Leukocyte-Associated Immunoglobulin-Like Receptor-1 (LAIR-1) Modulates Immune Response and Confers Poor Prognosis in Invasive Breast Carcinoma

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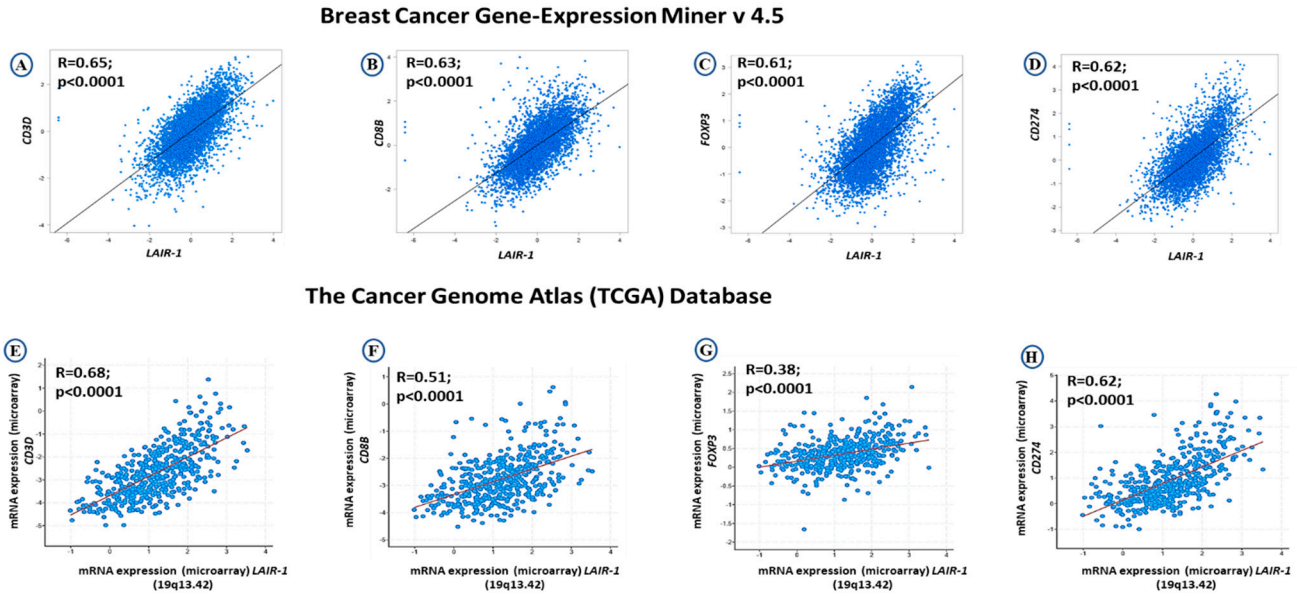

Figure S1. Correlation of *LAIR-1* gene with other immune biomarkers using Breast Cancer Gene-Expression Miner v 4.5 (**A**) *CD3D*, (**B**) *CD8B*, (**C**) *FOXP3* and (**D**) *CD274(PD-L1).* Similarly, with TCGA data base showing the association, with *LAIR-1* and (**E**) *CD3D*, (**F**)*CD8B*, (**G**) *FOXP3* and (H) *CD274(PD-L1).*

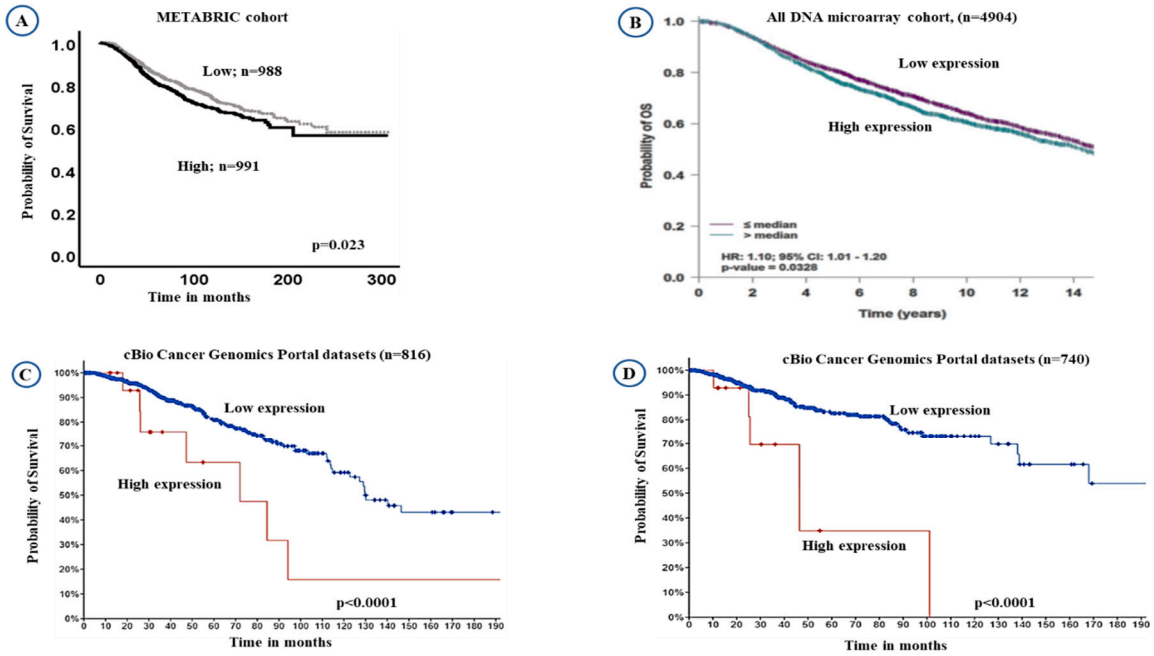

Figure S2. Kaplan–Meier Plots of *LAIR-1 mRNA* and patient outcome in breast cancer using the METABRIC cohort (**A**), and BC-gene miner database (**B**) All DNA microarray cohort. cBio Cancer Genomics Portal datasets showing (**C**) overall survival and (**D**) Disease Free Survival plots.

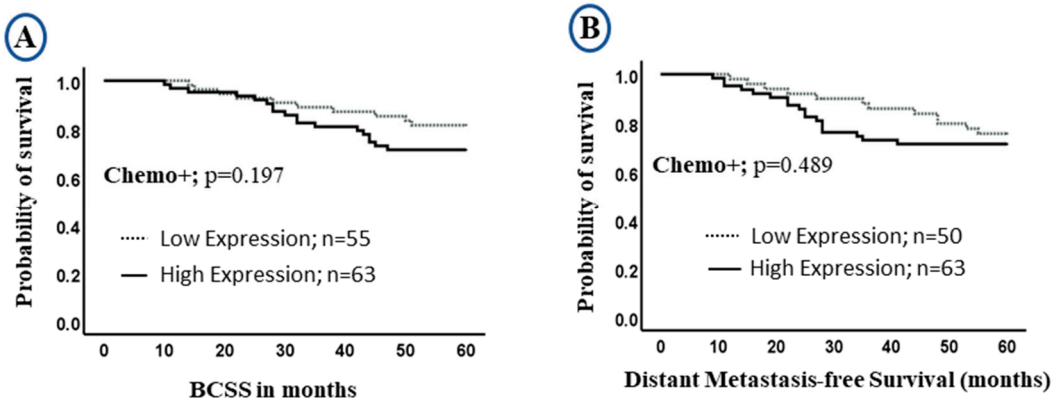

Figure S3. Kaplan–Meier plots of BCSS (**A**) and DMFS (**B**) in the Nottingham Breast Cancer cohort showing LAIR-1 protein level expression in patients who received chemotherapy.

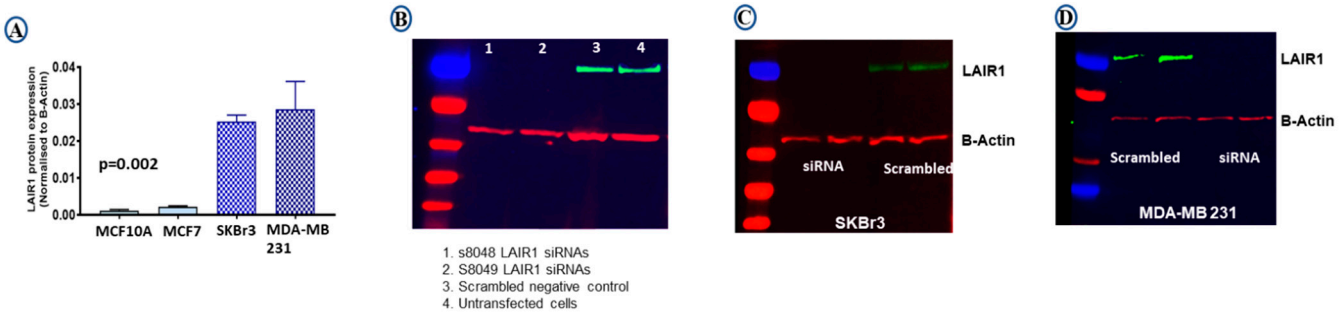

Figure S4. Differential protein expression of LAIR-1 in breast cancer cell lines. (**A**) LAIR-1 protein levels were quantified by densitometry and normalized to β-Actin levels, showing increased LAIR-1 expression in MDA-MB 231 and SKBr3 cell lines. (**B**) Downregulation of LAIR-1expression using two siRNAs: Both LAIR-1 siRNAs (s8048 and S8049), showed complete knockdown. LAIR-1 siRNA oligonucleotides were effective and showed almost complete loss of LAIR-1 protein expression; in (**C**) SKBr3 and (**D**) MDA-MB 231. Green and red bands represent LAIR-1 and the house-keeping Beta-Actin, respectively.

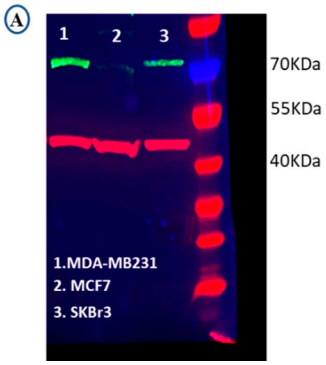

Figure S5. Western blotting image showing a single band for LAIR-1 antibody at ~70 Kda. Green and red bands represent LAIR-1 and the house-keeping Beta-Actin, respectively.