Supplementary figure 1
Mechanistic scheme of the mTOR signaling pathway with the downstream S6Ks and their prognostic and tamoxifen treatment predictive roles with regard to location. We found S6K1 protein overexpression in the cytoplasm and nucleus to hold prognostic value for breast cancer recurrence in an adjuvant untreated cohort, black box. The activity in the mTOR pathway measured by phosphorylated proteins; mTOR$^{2448}$, S6K1/2$^{389}$, pAkt$^{473}$, and pER$^{167/305}$ are all alone or in combination contributing to a tamoxifen resistant phenotype in a randomized tamoxifen versus no tamoxifen cohort of patients with ER-positive tumors, grey ellipse. Abbreviations: receptor tyrosine kinase (RTK), mechanistic/mammalian target of rapamycin (mTOR), S6 kinase (S6K), estrogen receptor (ER), S6K1 gene (RPS6KB1), progesterone receptor gene (PGR), cyclin D1 gene (CCND1), phosphorylation (p).