

## **table S1**

List of all 103 genes and proteins. The subcellular localization is given as Loc 1: predominant localization; Loc2: secondary localization if observed); TrueLoc: manually annotated localization of the protein; LocYFP: localization observed with fusion proteins of the orientation ORF-YFP; LocCFP: localization observed with the fusion protein of the orientation CFP-ORF, Tumor profiling results (ExProData) were extracted from Boer (11), and Sultmann (12). Results from the DNA replication assay are given for the observed effect (Sphase effect) and the respective p-value (Sphase pvalue). The first six rows correspond to controls: all – effect of all proteins in the assay (reference for no effect); CFP-YFP alone – CFP/YFP proteins expressed in cells without further fusion partners; PP2A – phosphatase 2A; CDI – CDK (p27) dependent inhibitor. NA – not analyzed, + activating effect in DNA replication assay, - repressing effect in DNA replication assay.

## **References**

11. Boer JM, Huber WK, Sultmann H, et al. Identification and classification of differentially expressed genes in renal cell carcinoma by expression profiling on a global human 31,500-element cDNA array. *Genome Res* 2001;11:1861-70.
12. Sultmann H, v. Heydebreck A, Huber W, et al. Gene expression in kidney cancer is associated with novel tumor subtypes, cytogenetic abnormalities and metastasis formation. *Clin Canc Res* 2005;11:646-55.