

Description of Additional Supplementary Files

File Name: Supplementary Data 1

Description: *Associations between driver mutations and selected mutational signatures within cancer types*

File Name: Supplementary Data 2

Description: *Associations between driver mutations and all mutational signatures within cancer types*

File Name: Supplementary Data 3

Description: *Mutations in each gene considered for differential selection analyses*

File Name: Supplementary Data 4

Description: *Pairs of mutations within a gene with frequencies significantly different from expectation based on mutational signatures*

File Name: Supplementary Data 5

Description: *Pairs of mutations in related genes with frequencies significantly different from expectation based on mutational signatures*

File Name: Supplementary Data 6

Description: *Driver genes used for the study*