

Supplementary Material 2. Amino acid substitutions in the UTX mutant.

Construct	Amino acid substitution
UTX-WT	Wild-type human UTX (KDM6A)
UTX-MUT	N1187Q

The mutant UTX construct (UTX-MUT) was generated by site-directed mutagenesis of the human UTX (KDM6A) coding sequence (UniProt: O15550), in which Asn1187 was substituted with glutamine (N1187Q). The mutant construct was used to assess the contribution of the predicted p53-binding interface to the UTX-p53 interaction.

Note: The amino acid residue mutated in the UTX-MUT construct is highlighted in red in the sequence below.

MKSCGVSLATAAAAAAAGDEEEKMAAGKASGESEEEASPSLTAEEREALGGLDSRLFGF
VRFHEDGARTKALLGKAVRCYESLILKAEGKVESDFFCQLGHFNLLLEDYPKALSAYQRY
YSLQSDYWKNAAFLYGLGLVYFHYNFQWAIKAFQEVLYVDPSFCRAKEIHLRLGLMFK
VNTDYESSLKHFQLALVDCNPCTLSNAEIQFHIAHLYETQRKYHSAKEAYEQLLQTENLSA
QVKATVLQQLGWMHHTVDLLGDKATKESYAIQYLQKSLEADPNSGQSWYFLGRCYSSIG
KVQDAFISYRQSIDKSEASADTWCSIGVLYQQNQPM DALQAYICAVQLDHGHAAAWMD
LGTLYESCNQPQDAIKCYLNATRSKSCSNTSALAARIKYLQAQLCNLPQGSLQNKTLLPS
IEEAWSLPIPAELTSRQGAMNTAQNTSDNWSGGHAVSHPPVQQQAHSWCLTPQKLQHLE
QLRANRNNLNPAQKLMLEQLESQFVLMQQHQMRPTGVAQVRSTGIPNGPTADSSLPTNS
VSGQQPQLALTRVPSVSQPGVRPACPGQPLANGPFSAGHVPCSTSRTL GSTDTILIGNNHIT
GSGSNGNVPYLQRNALTLPHNRTNLTSSAEPPWKNQLSNSTQGLHKGQSSHSAGPNGERP
LSSTGPSQHLQAAGSGIQNQNGHPTLPSNSVTQGAALNHLSSHTATSGGQQGITLTKEKP

SGNILTVPETSRHTGETPNSTASVEGLPNHVHQM TADAVCSPSHGDSKSPGLLSSDNPQLS
ALLMGKANNNVGTGTCDKVNNIHPAVHTKTDNSVASSPSSAISTATPSPKSTEQT TTNST
SLNSPHSGLHTINGEGMEESQSPMKTDLLLVNHKPS PQIIPMSVSIYPSSAEVLKACRNLG
KNGLSNSSILLDKCPPRPPSSPYPLPKDKLNPPTPSIYLENKRDAFFPPLHQFCTNPNNPV
TVIRGLAGALKLDLGLFSTKTLVEANNEHMVEVRTQLLQPADENWDPTGTTKIWHCESN
RSHTTIAKYAQYQASSFQESLREENEKRSHHKDHSDSESTSSDNSGRRRKGPFTIKFGTNI
DLSDDKKWKLQLHELTKLPAFVRVVSAGNLLSHVGHTILGMNTVQLYMKVPGSRTPGHQ
ENNNFCSVNINIGPGDCEWFVVP EGYWGV LNDFCEKNNL FLMGSWWPNLEDLYEANV
PVYRFIQRPGDLVWINAGTVHWVQAIGWCNNIAWNVGPLTACQYKLAVEYEW NKLQS
VKSIVPMVHLSWNMARNIKVSDPKLFEMIKYCLLRTLKQCQTLREALIAAGKEIWHGRT
KEEPAHYCSICEVEVFDLLFVTNESNSRKTYIVHCQDCARKTSGNLENFVVLEQYKMEDL
MQVYDQFTLAPPLPSASS