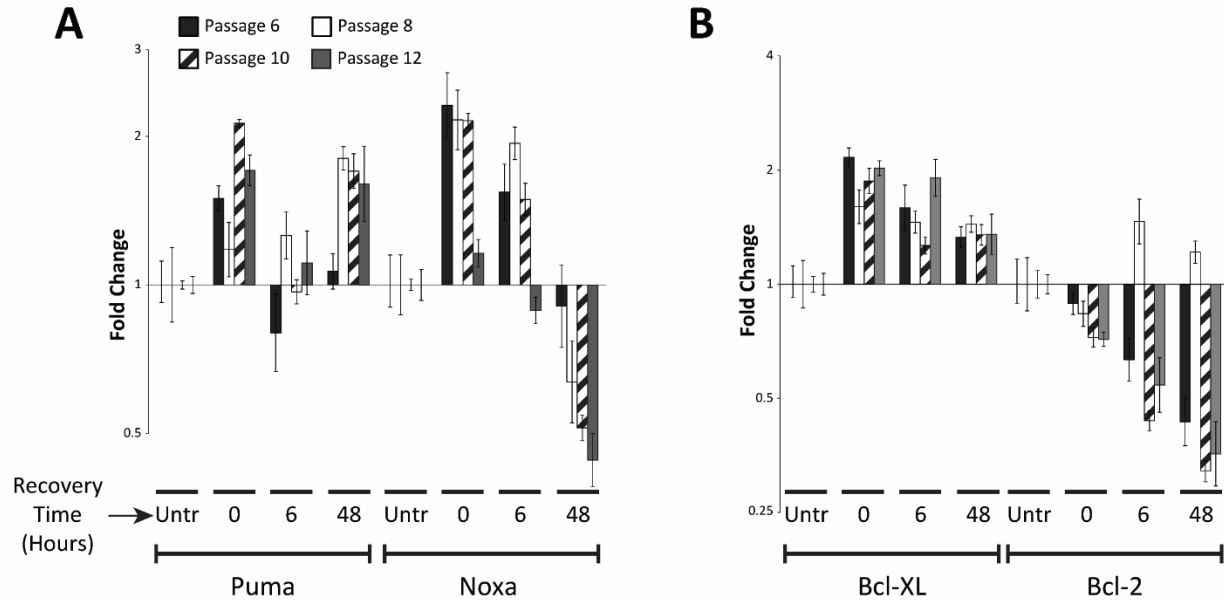
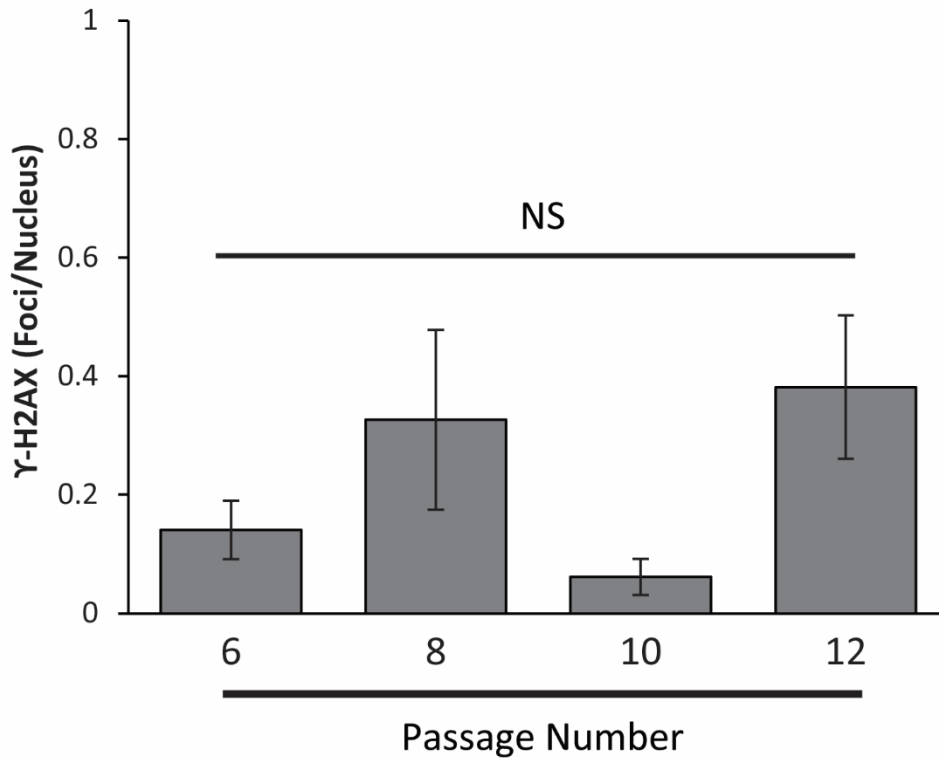


## Supporting Information



**Supplementary Figure 1.** Apoptosis associated transcriptional responses of MSCs following VP16 exposure with passage. (A) Pro-apoptotic and (B) anti-apoptotic mRNA expression evaluated by qPCR in MSCs exposed to 25 $\mu$ M VP16 for 24 hours followed by 0, 6, or 48 hours recovery in fresh medium. Fold changes are indicated relative to untreated controls.



**Supplementary Figure 2.** Average number of  $\gamma$ -H2AX foci per cell in untreated MSCs for passages 6 through 12. “NS” indicates no significant difference between any passage by Kruskal-Wallis test, p-value > 0.05.

**Supplementary Table 1.** qPCR Primer sequences (5' to 3').

<b>Gene</b>	<b>Forward</b>	<b>Reverse</b>
GUSB	AAACGATTGCAGGGTTTCAC	CTCTCGTCGGTGACTGTTCA
CDKN1A (p21)	CCTGGCACCTCACCTGCTC	CGGCGTTTGGAGTGGTAGA
CDKN2A (p16)	GGGGTCGGGTAGAGGAGGT	CCGTGGAGCAGCAGCAGC
TP53 (p53)	GCACATGACGGAGGTTGTGAG	ATGGTGGTACAGTCAGAGCCAAC
KU70	CCAATAAAGCTCTATCGGGAAAC	TTTCTCCAGTATAATCTGACGACTCC
KU80	AAAATTAAAGACTGAGCAAGGGG	TAGAACACGGAAGTTTTTCAGCAG
PRKDC (DNA-PK)	GCGAAGCACTGGCTTAGC	CTAACACTTCATCTTTAGGGACCC
XRCC2	GCAGTTGGTGAATGGCGTT	GCACAGGTGAATCTTCATCAGC
XRCC3	CGGCATCACTGAGCTGGC	AGCTCTCCTGGAACGTCAGTG
RAD51	GTCTCTCTGGCAGTGATGTCCT	TCTGTAAAGGGCGGTGGC
BBC3 (Puma)	AGACAAGAGGAGCAGCAGCG	CTGGGTAAAGGGCAGGAGTCC
PMAIP1 (Noxa)	AGCTGGAAGTCGAGTGTGCTACT	GCAAGTTTTTGATGCAGTCAGG
BCL2 (Bcl-2)	TGTCGCAGAGGGGCTACG	GGATGCGGCTGGATGGG
BCL2L1 (Bcl-XL)	TCCAGGAGAACGGCGGC	GAGCCCAGCAGAACCACG