|  |  |  |
| --- | --- | --- |
| Cell line | *O6*-methylguanine per 107 nts | |
| Mock | 80 µM TMZ |
| Control | < LOD | 12.15 ± 2.65 |
| Control-TMZR3 | < LOD | 10.41 ± 0.51 |
| p53kd | < LOD | 11.77 ± 1.11 |
| p53kd-TMZR3 | < LOD | 10.78 ± 1.13 |

**Supplementary Table S1. *O*6-methylguanine adducts levels in parental and TMZR3 GBM cells 3 hours post-TMZ exposure.**

Adduct levels were quantified by isotope dilution mass spectrometry. No significant differences were observed in the *O*6-meG adduct levels of parental and TMZR3 GBM cells post TMZ exposure (n=2, ± s.d. Student’s t-test).

|  |  |  |
| --- | --- | --- |
| Hairpin | Vector | Catalog number and clone ID or Seed sequence |
| Non-silencing control | pGIPZ | RHS4346 |
| shp53 | pGIPZ | RHS4430-98486236 ID: V2LHS\_217 |
| shMSH2 #1 | pGIPZ | RHS4430-101025896 ID: V3LHS\_390385 |
| shMSH2 #2 | pGIPZ | RHS4430-101520518 ID: V3LHS\_390381 |
| shMSH2 #3 | pGIPZ | RHS4430-101519140 ID: V3LHS\_390383 |
| shMSH2 #4 | pGIPZ | RHS4430-101521023 ID: V3LHS\_390382 |
| shMSH2 #5 | pGIPZ | RHS4430-101034588 ID: V3LHS\_390386 |
| shMSH6 #1 | pGIPZ | RHS4430-101130892 ID: V3LHS\_318784 |
| shMSH6 #2 | pGIPZ | RHS4430-98481628 ID: V2LHS\_82746 |
| shMSH6 #3 | pGIPZ | RHS4430-99299091 ID: V2LHS\_258239 |
| shMSH6 #4 | pGIPZ | RHS4430-98513265 ID: V2LHS\_82749 |
| shMSH6 #5 | pGIPZ | RHS4430-99166454 ID: V2LHS\_82747 |
| Vector control | TMP | ---- |
| MSH2 hairpin 1 | TMP | CAGGATGCCATTGTTAAAGAA |
| MSH2 hairpin 2 | TMP | AACGATGTGCTGGCTCACTTA |

**Supplementary Table S2. shRNA constructs used in this study**