

Table SIII. Pathway analysis of the predicted target genes of microRNAs upregulated >2.000-fold in the small intestine of mice exposed to 10 Gy of X-ray irradiation.

| Pathway | P-value | Matched Entities | Pathway Entities of Experiment Type |
|--|------------------------|------------------|-------------------------------------|
| Mm_PluriNetWork_WP1763_89515 | 1.63x10 ⁻¹⁸ | 7 | 291 |
| Mm_mRNA_processing_WP310_78419 | 7.06x10 ⁻¹¹ | 4 | 549 |
| Mm_Non-odorant_GPCRs_WP1396_69993 | 2.45x10 ⁻⁸ | 3 | 267 |
| Mm_Metapathway_biotransformation_WP1251_94721 | 2.45x10 ⁻⁸ | 3 | 143 |
| Mm_Myometrial_Relaxation_and_Contraction_Pathway_s_WP385_95806 | 2.45x10 ⁻⁸ | 3 | 150 |
| Mm_IL-6_signaling_Pathway_WP387_72091 | 2.45x10 ⁻⁸ | 3 | 99 |
| Mm_Focal_Adhesion-PI3K-Akt-mTOR-signaling_pathway_WP2841_94308 | 2.45x10 ⁻⁸ | 3 | 330 |
| Mm_Focal_Adhesion_WP85_94410 | 2.45x10 ⁻⁸ | 3 | 185 |
| Mm_Chemokine_signaling_pathway_WP2292_97515 | 2.45x10 ⁻⁸ | 3 | 191 |
| Mm_Cytoplasmic_Ribosomal_Proteins_WP163_78425 | 8.49x10 ⁻⁶ | 2 | 80 |
| Mm_Microglia_Pathogen_Phagocytosis_Pathway_WP3626_102043 | 8.49x10 ⁻⁶ | 2 | 41 |
| Mm_IL-3_Signaling_Pathway_WP373_69196 | 8.49x10 ⁻⁶ | 2 | 100 |
| Mm_MicroRNAs_in_Cardiomyocyte_Hypertrophy_WP1560_70037 | 8.49x10 ⁻⁶ | 2 | 104 |
| Mm_Adipogenesis_genes_WP447_87026 | 8.49x10 ⁻⁶ | 2 | 133 |
| Mm_Retinol_metabolism_WP1259_89974 | 8.49x10 ⁻⁶ | 2 | 39 |
| Mm_SIDS_Susceptibility_Pathways_WP1266_69139 | 8.49x10 ⁻⁶ | 2 | 61 |
| Mm_Splicing_factor_NOVA_regulated_synaptic_proteins_WP1983_89961 | 8.49x10 ⁻⁶ | 2 | 42 |
| Mm_Spinal_Cord_Injury_WP2432_102465 | 8.49x10 ⁻⁶ | 2 | 102 |
| Mm_Tryptophan_metabolism_WP79_91016 | 8.49x10 ⁻⁶ | 2 | 44 |
| Mm_PPAR_signaling_pathway_WP2316_97554 | 0.002920748 | 1 | 85 |

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| Mm_Heart_Development_WP2067_88634 | 0.002920748 | 1 | 47 |
| Mm_One_Carbon_Metabolism_WP435_98059 | 0.002920748 | 1 | 29 |
| Mm_Complement_Activation,_Classical_Pathway_WP200_72061 | 0.002920748 | 1 | 17 |
| Mm_Estrogen_signaling_WP1244_90713 | 0.002920748 | 1 | 74 |
| Mm_MAPK_signaling_pathway_WP493_78412 | 0.002920748 | 1 | 159 |
| Mm_Selenium_Micronutrient_Network_WP1272_95973 | 0.002920748 | 1 | 31 |
| Mm_Selenium_metabolism-Selenoproteins_WP108_97059 | 0.002920748 | 1 | 48 |
| Mm_IL-5_Signaling_Pathway_WP151_69175 | 0.002920748 | 1 | 69 |
| Mm_Complement_and_Coagulation_Cascades_WP449_71733 | 0.002920748 | 1 | 62 |
| Mm_Prostaglandin_Synthesis_and_Regulation_WP374_69204 | 0.002920748 | 1 | 31 |
| Mm_Glycolysis_and_Gluconeogenesis_WP157_90167 | 0.002920748 | 1 | 50 |
| Mm_Oxidative_Damage_WP1496_90720 | 0.002920748 | 1 | 41 |
| Mm_Fatty_Acid_Biosynthesis_WP336_90165 | 0.002920748 | 1 | 22 |
| Mm_EGFR1_Signaling_Pathway_WP572_82883 | 0.002920748 | 1 | 176 |
| Mm_FAS_pathway_and_Stress_induction_of_HSP_regulation_WP571_71736 | 0.002920748 | 1 | 38 |
| Mm_Glutathione_and_one_carbon_metabolism_WP730_87554 | 0.002920748 | 1 | 44 |
| Mm_Odorant_GPCRs_WP1397_82866 | 0.002920748 | 1 | 225 |
| Mm_Methylation_WP1247_69203 | 0.002920748 | 1 | 9 |
| Mm_Matrix_Metalloproteinases_WP441_69114 | 0.002920748 | 1 | 29 |
| Mm_G_Protein_Signaling_Pathways_WP232_89955 | 0.002920748 | 1 | 91 |
| Mm_Glycogen_Metabolism_WP317_89956 | 0.002920748 | 1 | 34 |
| Mm_Kit_Receptor_Signaling_Pathway_WP407_69079 | 0.002920748 | 1 | 67 |
| Mm_GPCRs,_Other_WP41_78413 | 0.002920748 | 1 | 210 |
| Mm_Signaling_of_Hepatocyte_Growth_Factor_Receptor_WP193_88163 | 0.002920748 | 1 | 34 |

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|---|-------------|---|-----|
| Mm_Glutathione_metabolism_WP164_85644 | 0.002920748 | 1 | 19 |
| Mm_Insulin_Signaling_WP65_88446 | 0.002920748 | 1 | 160 |
| Mm_Eukaryotic_Transcription_Initiation_WP567_89957 | 0.002920748 | 1 | 41 |
| Mm_p38_MAPK_Signaling_Pathway_WP350_95744 | 0.002920748 | 1 | 34 |
| Mm_Glucuronidation_WP1241_79223 | 0.002920748 | 1 | 18 |
| Mm_Histone_modifications_WP300_71890 | 0.002920748 | 1 | 5 |
| Mm_Eicosanoid_Synthesis_WP318_89525 | 0.002920748 | 1 | 19 |
| Mm_Calcium_Regulation_in_the_Cardiac_Cell_WP553_95761 | 0.002920748 | 1 | 145 |
| Mm_Id_Signaling_Pathway_WP512_69147 | 0.002920748 | 1 | 52 |
| Mm_Alzheimers_Disease_WP2075_97336 | 0.002920748 | 1 | 77 |
| Mm_Apoptosis_Modulation_by_HSP70_WP166_98541 | 0.002920748 | 1 | 18 |
| Mm_Integrin-mediated_Cell_Adhesion_WP6_97547 | 0.002920748 | 1 | 101 |
| Mm_GPCRs,_Class_A_Rhodopsin-like_WP189_79710 | 0.002920748 | 1 | 231 |
| Mm_Iron_Homeostasis_WP1596_72018 | 0.002920748 | 1 | 14 |
| Mm_Wnt_Signaling_Pathway_NetPath_WP539_71716 | 0.002920748 | 1 | 109 |
| Mm_Proteasome_Degradation_WP519_95796 | 0.002920748 | 1 | 53 |
| Mm_ESC_Pluripotency_Pathways_WP339_94309 | 0.002920748 | 1 | 118 |
| Mm_Oxidation_by_Cytochrome_P450_WP1274_73502 | 0.002920748 | 1 | 40 |
| Mm_BMP_Signaling_Pathway_in_Eyelid_Development_WP3663_90081 | 0.002920748 | 1 | 20 |
| Mm_Neural_Crest_Differentiation_WP2074_101978 | 0.002920748 | 1 | 101 |
| Mm_Regulation_of_Actin_Cytoskeleton_WP523_71326 | 0.002920748 | 1 | 151 |