

Table S6: Functional Annotation TNT 0.004 mg/L

Biological Functions	p-Value
Amino Acid Metabolism	1.00E-04
Embryonic Development	1.05E-04
Organ Development	1.05E-04
Organ Morphology	1.05E-04
Organismal Development	1.05E-04
Tissue Development	1.05E-04
Visual System Development and Function	1.05E-04
Visual System Development and Function	1.88E-04
Tissue Morphology	1.88E-04
Carbohydrate Metabolism	4.79E-04
Amino Acid Metabolism	4.79E-04
Drug Metabolism	4.79E-04
Small Molecule Biochemistry	4.79E-04
Vitamin and Mineral Metabolism	4.79E-04
Embryonic Development	4.79E-04
Organ Development	4.79E-04
Organismal Development	4.79E-04
Tissue Development	4.79E-04
Visual System Development and Function	4.79E-04
Cellular Assembly and Organization	4.79E-04
Cellular Development	4.79E-04
Cellular Assembly and Organization	4.79E-04
Developmental Disorder	4.79E-04
Hereditary Disorder	4.79E-04
Metabolic Disease	4.79E-04
Neurological Disease	4.79E-04
Visual System Development and Function	4.79E-04
Cell Death and Survival	4.79E-04
Lipid Metabolism	4.79E-04
Small Molecule Biochemistry	4.79E-04
Developmental Disorder	4.79E-04
Hereditary Disorder	4.79E-04
Metabolic Disease	4.79E-04
Renal and Urological Disease	4.79E-04
Lipid Metabolism	4.79E-04
Small Molecule Biochemistry	4.79E-04
Cell Death and Survival	4.79E-04
Organ Morphology	5.47E-04
Tissue Morphology	5.47E-04
Cell Morphology	5.47E-04
Digestive System Development and Function	5.47E-04
Hepatic System Development and Function	5.47E-04
Embryonic Development	5.76E-04
Organ Development	5.76E-04
Organ Morphology	5.76E-04
Organismal Development	5.76E-04

Toxicological Functions	p-value
Renal Inflammation	1.44E-03
Renal Nephritis	1.44E-03
Cardiac Inflammation	8.11E-03
Cardiac Necrosis/Cell Death	1.62E-02
Liver Cholestasis	2.84E-02

Toxicological Lists	p-value
Fatty Acid Metabolism	0.05495
Aryl Hydrocarbon Receptor Signaling	0.07244
Cardiac Necrosis/Cell Death	0.10375
Xenobiotic Metabolism Signaling	0.15488

Tissue Development	5.76E-04
Visual System Development and Funct	5.76E-04
Organ Morphology	7.02E-04
Nervous System Development and Fun	7.02E-04
Developmental Disorder	9.57E-04
Hereditary Disorder	9.57E-04
Ophthalmic Disease	9.57E-04
Cell Death and Survival	9.57E-04
Cellular Assembly and Organization	9.57E-04
Visual System Development and Funct	9.57E-04
Lipid Metabolism	9.57E-04
Small Molecule Biochemistry	9.57E-04
Lipid Metabolism	9.57E-04
Small Molecule Biochemistry	9.57E-04
Small Molecule Biochemistry	9.57E-04
Energy Production	9.57E-04
Renal and Urological Disease	1.44E-03
Inflammatory Disease	1.44E-03
Inflammatory Response	1.44E-03
Visual System Development and Funct	1.44E-03
Nervous System Development and Fun	1.44E-03
Cell Signaling	1.44E-03
Organ Morphology	1.91E-03
Digestive System Development and Fu	1.91E-03
Hepatic System Development and Fun	1.91E-03
Cell Death and Survival	1.91E-03
Cellular Function and Maintenance	1.91E-03
Ophthalmic Disease	1.91E-03
Hereditary Disorder	1.91E-03
Ophthalmic Disease	1.91E-03
Cell Death and Survival	2.39E-03
Cellular Function and Maintenance	2.39E-03
Cellular Assembly and Organization	2.39E-03
Cellular Function and Maintenance	2.39E-03
Cellular Compromise	2.39E-03
Embryonic Development	2.87E-03
Organ Development	2.87E-03
Organ Morphology	2.87E-03
Organismal Development	2.87E-03
Tissue Development	2.87E-03
Visual System Development and Funct	2.87E-03
Tissue Morphology	2.87E-03
Cell Morphology	2.87E-03
Vitamin and Mineral Metabolism	2.87E-03
Cell Signaling	2.87E-03
Cell Signaling	2.87E-03
Organ Morphology	3.34E-03
Digestive System Development and Fu	3.34E-03
Hepatic System Development and Fun	3.34E-03

Embryonic Development	3.35E-03
Organ Development	3.35E-03
Organ Morphology	3.35E-03
Organismal Development	3.35E-03
Tissue Development	3.35E-03
Visual System Development and Funct	3.35E-03
Tissue Morphology	3.35E-03
Cell Morphology	3.35E-03
Lipid Metabolism	3.35E-03
Small Molecule Biochemistry	3.35E-03
Post-Translational Modification	3.35E-03
Ophthalmic Disease	3.59E-03
Organ Morphology	3.82E-03
Embryonic Development	3.82E-03
Organ Development	3.82E-03
Organismal Development	3.82E-03
Tissue Development	3.82E-03
Visual System Development and Funct	3.82E-03
Cellular Assembly and Organization	3.82E-03
Cellular Development	3.82E-03
Cell Morphology	3.82E-03
Small Molecule Biochemistry	3.82E-03
Energy Production	3.82E-03
DNA Replication, Recombination, and P	3.82E-03
Nucleic Acid Metabolism	3.82E-03
Small Molecule Biochemistry	3.82E-03
Energy Production	3.82E-03
Molecular Transport	3.82E-03
Tissue Morphology	3.82E-03
Visual System Development and Funct	3.82E-03
Tissue Morphology	3.82E-03
Cellular Assembly and Organization	3.82E-03
Cellular Function and Maintenance	3.82E-03
Neurological Disease	3.82E-03
Post-Translational Modification	3.96E-03
Protein Degradation	3.96E-03
Protein Synthesis	3.96E-03
Embryonic Development	4.30E-03
Organ Development	4.30E-03
Organ Morphology	4.30E-03
Organismal Development	4.30E-03
Tissue Development	4.30E-03
Visual System Development and Funct	4.30E-03
Tissue Morphology	4.30E-03
Cell Morphology	4.30E-03
Nervous System Development and Fur	4.30E-03
Visual System Development and Funct	4.30E-03
Cellular Function and Maintenance	4.30E-03
Lipid Metabolism	4.30E-03

Small Molecule Biochemistry	4.30E-03
Vitamin and Mineral Metabolism	4.30E-03
Energy Production	4.30E-03
Visual System Development and Funct	4.30E-03
Cell Death and Survival	4.59E-03
Organ Morphology	4.78E-03
Nervous System Development and Fur	4.78E-03
Embryonic Development	4.78E-03
Organ Development	4.78E-03
Organ Morphology	4.78E-03
Organismal Development	4.78E-03
Tissue Development	4.78E-03
Visual System Development and Funct	4.78E-03
Tissue Morphology	4.78E-03
Cell Morphology	4.78E-03
Embryonic Development	4.78E-03
Organ Development	4.78E-03
Organ Morphology	4.78E-03
Organismal Development	4.78E-03
Tissue Development	4.78E-03
Visual System Development and Funct	4.78E-03
Tissue Morphology	4.78E-03
Cell Morphology	4.78E-03
Metabolic Disease	4.78E-03
Hematological Disease	4.78E-03
Neurological Disease	4.96E-03
Hereditary Disorder	5.26E-03
Ophthalmic Disease	5.26E-03
Amino Acid Metabolism	5.26E-03
Drug Metabolism	5.26E-03
Small Molecule Biochemistry	5.26E-03
Vitamin and Mineral Metabolism	5.26E-03
Molecular Transport	5.26E-03
Hereditary Disorder	5.73E-03
Ophthalmic Disease	5.73E-03
Tissue Morphology	5.73E-03
Tissue Morphology	6.21E-03
Cell Morphology	6.21E-03
Nervous System Development and Fur	6.21E-03
Amino Acid Metabolism	6.21E-03
Small Molecule Biochemistry	6.21E-03
Molecular Transport	6.21E-03
Ophthalmic Disease	6.21E-03
Lipid Metabolism	6.21E-03
Small Molecule Biochemistry	6.21E-03
Amino Acid Metabolism	6.21E-03
Small Molecule Biochemistry	6.21E-03
Molecular Transport	6.21E-03
Embryonic Development	6.68E-03

Organ Development	6.68E-03
Organ Morphology	6.68E-03
Organismal Development	6.68E-03
Tissue Development	6.68E-03
Visual System Development and Function	6.68E-03
Tissue Morphology	6.68E-03
Cell Morphology	6.68E-03
Cancer	6.68E-03
Cellular Compromise	6.68E-03
Hematological Disease	6.68E-03
Cancer	6.68E-03
Amino Acid Metabolism	6.68E-03
Small Molecule Biochemistry	6.68E-03
Molecular Transport	6.68E-03
Nucleic Acid Metabolism	6.68E-03
Hematological Disease	6.68E-03
Cancer	6.68E-03
Immunological Disease	6.68E-03
Drug Metabolism	6.68E-03
Lipid Metabolism	6.68E-03
Small Molecule Biochemistry	6.68E-03
Vitamin and Mineral Metabolism	6.68E-03
Cancer	6.68E-03
Endocrine System Disorders	6.68E-03
Reproductive System Disease	6.68E-03
Tissue Morphology	6.83E-03
Cell Morphology	6.83E-03
Nervous System Development and Function	6.83E-03
Cancer	7.16E-03
Reproductive System Disease	7.16E-03
Amino Acid Metabolism	7.16E-03
Small Molecule Biochemistry	7.16E-03
Molecular Transport	7.16E-03
Cellular Compromise	7.16E-03
Ophthalmic Disease	7.16E-03
Hereditary Disorder	7.64E-03
Inflammatory Disease	7.64E-03
Hematological Disease	7.64E-03
Cancer	7.64E-03
Organismal Injury and Abnormalities	7.74E-03
Organ Morphology	8.11E-03
Nervous System Development and Function	8.11E-03
Embryonic Development	8.11E-03
Organ Development	8.11E-03
Organ Morphology	8.11E-03
Organismal Development	8.11E-03
Tissue Development	8.11E-03
Visual System Development and Function	8.11E-03
Dermatological Diseases and Conditions	8.11E-03

Infectious Disease	8.11E-03
Neurological Disease	8.11E-03
Ophthalmic Disease	8.11E-03
Cellular Compromise	8.11E-03
Inflammatory Disease	8.11E-03
Cardiovascular Disease	8.11E-03
Visual System Development and Function	8.11E-03
Nervous System Development and Function	8.59E-03
Embryonic Development	8.59E-03
Organ Development	8.59E-03
Organ Morphology	8.59E-03
Organismal Development	8.59E-03
Tissue Development	8.59E-03
Visual System Development and Function	8.59E-03
Immunological Disease	8.59E-03
Organismal Injury and Abnormalities	8.59E-03
Tissue Morphology	8.59E-03
Neurological Disease	8.59E-03
Cancer	8.59E-03
Cellular Assembly and Organization	9.06E-03
Cell Morphology	9.06E-03
Small Molecule Biochemistry	9.06E-03
Energy Production	9.06E-03
DNA Replication, Recombination, and Repair	9.06E-03
Nucleic Acid Metabolism	9.06E-03
Post-Translational Modification	1.00E-02
Cell Morphology	1.05E-02
Cellular Function and Maintenance	1.05E-02
Amino Acid Metabolism	1.14E-02
Lipid Metabolism	1.14E-02
Small Molecule Biochemistry	1.14E-02
Molecular Transport	1.14E-02
Cancer	1.14E-02
Hematological Disease	1.19E-02
Cancer	1.19E-02
Cellular Assembly and Organization	1.24E-02
Cancer	1.25E-02
Endocrine System Disorders	1.25E-02
Gastrointestinal Disease	1.25E-02
Developmental Disorder	1.33E-02
Hereditary Disorder	1.33E-02
Metabolic Disease	1.33E-02
Inflammatory Disease	1.33E-02
Connective Tissue Disorders	1.33E-02
Skeletal and Muscular Disorders	1.33E-02
Cancer	1.38E-02
Dermatological Diseases and Conditions	1.38E-02
Organ Morphology	1.43E-02
Cell Morphology	1.43E-02

Digestive System Development and Fu	1.43E-02
Endocrine System Development and Fu	1.43E-02
Organ Morphology	1.43E-02
Digestive System Development and Fu	1.43E-02
Endocrine System Development and Fu	1.43E-02
Organ Morphology	1.43E-02
Tissue Morphology	1.43E-02
Cell Morphology	1.43E-02
Nervous System Development and Fur	1.43E-02
Behavior	1.43E-02
Cellular Assembly and Organization	1.43E-02
Cellular Function and Maintenance	1.43E-02
Cellular Function and Maintenance	1.47E-02
Cell Morphology	1.51E-02
Hereditary Disorder	1.52E-02
Renal and Urological Disease	1.52E-02
Cancer	1.52E-02
Embryonic Development	1.52E-02
Organ Development	1.52E-02
Organ Morphology	1.52E-02
Organismal Development	1.52E-02
Tissue Development	1.52E-02
Visual System Development and Funct	1.52E-02
Organ Morphology	1.62E-02
Nervous System Development and Fur	1.62E-02
Cell Death and Survival	1.62E-02
Organismal Injury and Abnormalities	1.66E-02
Respiratory Disease	1.66E-02
Inflammatory Disease	1.66E-02
Hematological Disease	1.66E-02
Cancer	1.66E-02
Dermatological Diseases and Condition	1.66E-02
Renal and Urological Disease	1.66E-02
Cancer	1.66E-02
Cellular Response to Therapeutics	1.76E-02
Cancer	1.76E-02
Reproductive System Disease	1.76E-02
Organ Morphology	1.81E-02
Nervous System Development and Fur	1.81E-02
Organ Morphology	1.81E-02
Renal and Urological System Developm	1.81E-02
Cancer	1.81E-02
Hereditary Disorder	1.81E-02
Neurological Disease	1.81E-02
Organ Morphology	1.99E-02
Nervous System Development and Fur	1.99E-02
Neurological Disease	2.00E-02
Cancer	2.09E-02
Amino Acid Metabolism	2.09E-02

Small Molecule Biochemistry	2.09E-02
Molecular Transport	2.09E-02
Neurological Disease	2.09E-02
Ophthalmic Disease	2.09E-02
Cardiovascular Disease	2.28E-02
Cardiovascular System Development a	2.28E-02
Cell Death and Survival	2.42E-02
Hematological Disease	2.46E-02
Cancer	2.46E-02
Post-Translational Modification	2.51E-02
Embryonic Development	2.56E-02
Organ Development	2.56E-02
Organ Morphology	2.56E-02
Organismal Development	2.56E-02
Tissue Development	2.56E-02
Visual System Development and Funct	2.56E-02
Small Molecule Biochemistry	2.56E-02
Cell-To-Cell Signaling and Interaction	2.56E-02
Cardiovascular Disease	2.65E-02
Cell Death and Survival	2.70E-02
Organ Morphology	2.74E-02
Cardiovascular System Development a	2.74E-02
Skeletal and Muscular System Develop	2.74E-02
Organismal Functions	2.84E-02
Hereditary Disorder	2.84E-02
Gastrointestinal Disease	2.84E-02
Hepatic System Disease	2.84E-02
Cancer	2.93E-02
Reproductive System Disease	2.93E-02
Embryonic Development	2.98E-02
Organ Development	2.98E-02
Organ Morphology	2.98E-02
Organismal Development	2.98E-02
Tissue Development	2.98E-02
Visual System Development and Funct	2.98E-02
Organ Morphology	3.16E-02
Nervous System Development and Fur	3.16E-02
Nervous System Development and Fur	3.21E-02
Organismal Injury and Abnormalities	3.21E-02
Hereditary Disorder	3.35E-02
Neurological Disease	3.35E-02
Psychological Disorders	3.35E-02
Post-Translational Modification	3.40E-02
Protein Folding	3.40E-02
Cellular Assembly and Organization	3.40E-02
Cellular Function and Maintenance	3.40E-02
Small Molecule Biochemistry	3.49E-02
Cell Signaling	3.49E-02
DNA Replication, Recombination, and P	3.49E-02

Nucleic Acid Metabolism	3.49E-02
Lipid Metabolism	3.49E-02
Small Molecule Biochemistry	3.49E-02
Small Molecule Biochemistry	3.54E-02
Cell Signaling	3.54E-02
Nucleic Acid Metabolism	3.54E-02
Hematological System Development and Function	3.54E-02
Cell Death and Survival	3.61E-02
Nervous System Development and Function	3.77E-02
Organismal Functions	3.77E-02
Cancer	3.77E-02
Skeletal and Muscular Disorders	3.77E-02
Digestive System Development and Function	3.77E-02
Behavior	3.77E-02
Cellular Development	3.81E-02
Cellular Growth and Proliferation	3.81E-02
Cellular Function and Maintenance	3.81E-02
Cellular Development	4.09E-02
Cellular Growth and Proliferation	4.09E-02
Reproductive System Development and Function	4.09E-02
Cell Death and Survival	4.32E-02
Cellular Assembly and Organization	4.64E-02
Organ Morphology	4.78E-02
Nervous System Development and Function	4.78E-02

Canonical Pathways	pvalue
Formaldehyde Oxidation II (Glutathione-d	0.004
Methylmalonyl Pathway	0.006
2-oxobutanoate Degradation I	0.008
Ethanol Degradation II	0.02
Noradrenaline and Adrenaline Degradatio	0.025
Phototransduction Pathway	0.029
Superpathway of Methionine Degradation	0.03
Remodeling of Epithelial Adherens Junctio	0.032
Serotonin Degradation	0.035

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