Table S1: Node type information

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| Classes | description | data sources | # instances | identifier |
| Chemical Compound/Drug | a small bioactive molecule | PubChem, DrugBank | 258033 | PubChem CID |
| Target | gene or gene expression products | UNIPROT  | 21733 | Gene Symbol |
| Pathway | a set or series of biological interactions | KEGG | 192 | KEGG ID |
| Disease | a disordered or incorrectly functioning organ of body | OMIM | 1284 | OMIM ID |
| Side effect | undesired effect from a medicine | SIDER | 1051 | UMLS ID |
| Tissue | an ensemble of cells | HPRD | 507 | Tissue Name |
| Gene family | HGNC gene family | HGNC | 329 | Gene family name |
| Gene ontology | gene ontology term | GOA | 9710 | GO ID |
| Chemical ontology | chemical ontology term | ChEBI | 2777 | ChEBI ID |
| Substructure | Chemical substructure | DrugBank | 290 | Substructure Name |