

**Supplemental Data 02:** Statistics of the integrated ontologies/graphs (snapshot used in this study). Original formats and conversion to N-Triples, data acquisition dates, licenses, and counts of distinct triples and properties for each graph. (All computations in Results are based on this snapshot hosted in MetaDB; no SERVICE federation.)

Integrated ontologies/RDF graphs	Data format of original data or conversion methods to N-triples	Data acquisition date	License	No. of triples (distinct)	No. of properties (distinct)
ChEBI (ver. 244)	OWL	09/09/2025	CC BY 4.0	916,983	39
Gene Ontology (ver. 2025-07-22)	OWL	10/09/2025		241,191	50
UniProt-NCBI Gene (ver. 2025-06-18)	Conversion from TSV data to N-triples	30/07/2025		12,625,915	1
UniProt-Enzyme	Execution of the SPARQL query and acquisition of N-triple	30/07/2025		36,460,186	1
UniProt-GO		30/07/2025		349,538	2
Rhea	RDF/XML	10/03/2024		211,004	67
KNAPSAck	Turtle	23/08/2023		779,925	33
Bioresource KG (DNA material, e.g., <i>Homo sapiens</i> , <i>Mus musculus</i> )	Turtle	04/07/2025		2,185,956	31
Bioresource KG (Plant DNA material, e.g., <i>Arabidopsis thaliana</i> )	Turtle	29/06/2025		2,596,497	27

