

# Resource Summary Report

Generated by [kravitz2](#) on Jul 30, 2026

## MINAS - Metal Ions in Nucleic AcidS

RRID:SCR\_013145

Type: Tool

### Proper Citation

MINAS - Metal Ions in Nucleic AcidS (RRID:SCR\_013145)

### Resource Information

**URL:** <http://www.minas.uzh.ch/>

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**Description:** Database compiling the detailed information on innersphere, outersphere and larger coordination environment of >70,000 metal ions of 36 elements found in >2000 structures of nucleic acids contained today in the PDB and NDB. MINAS is updated monthly with new structures and offers a multitude of search functions, e.g. the kind of metal ion, metal-ligand distance, innersphere and outersphere ligands defined by element or functional group, residue, experimental method, as well as PDB entry-related information. The results of each search can be saved individually for later use with so-called miniPDB files containing the respective metal ion together with the coordination environment within a 15 Å radius. MINAS thus offers a unique way to explore the coordination geometries and ligands of metal ions together with the respective binding pockets in nucleic acids.

**Abbreviations:** MINAS

**Synonyms:** Metal Ions in Nucleic AcidS, MINAS - A Database of Metal Ions in Nucleic AcidS

**Resource Type:** data or information resource, database

**Defining Citation:** [PMID:22096233](#)

**Keywords:** metal ion, binding pocket, nucleic acid, metal-ligand distance, innersphere ligand, outersphere ligand, ligand, element, functional group, residue, protein databank, bio.tools

**Funding:** Swiss National Science Foundation PP002-68733/1

**Resource Name:** MINAS - Metal Ions in Nucleic AcidS

**Resource ID:** SCR\_013145

**Alternate IDs:** nlx\_151459, biotools:minas

**Alternate URLs:** <https://bio.tools/minas>

**Record Creation Time:** 20220129T080314+0000

**Record Last Update:** 20260729T044313+0000

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## Ratings and Alerts

No rating or validation information has been found for MINAS - Metal Ions in Nucleic AcidS.

No alerts have been found for MINAS - Metal Ions in Nucleic AcidS.

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## Data and Source Information

**Source:** [SciCrunch Registry](#)

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## Usage and Citation Metrics

We found 5 mentions in open access literature.

**Listed below are recent publications.** The full list is available at [kravitz2](#) .

Zeng T, et al. (2025) ANXA1 binds and stabilizes EGFR to promote nasopharyngeal carcinoma radioresistance. Molecular cancer therapeutics.

Andreini C, et al. (2013) MetalPDB: a database of metal sites in biological macromolecular structures. Nucleic acids research, 41(Database issue), D312.

Schnabl J, et al. (2012) MINAS--a database of Metal Ions in Nucleic AcidS. Nucleic acids research, 40(Database issue), D434.

Galperin MY, et al. (2012) The 2012 Nucleic Acids Research Database Issue and the online Molecular Biology Database Collection. Nucleic acids research, 40(Database issue), D1.

Frederiksen JK, et al. (2009) Identification of catalytic metal ion ligands in ribozymes. Methods (San Diego, Calif.), 49(2), 148.