

GenBank Accession Number Reference Sheet

The International Nucleotide Sequence Database Collaboration (INSDC) consists of the DNA Data Bank of Japan (DDBJ), the European Molecular Biology Laboratory (EMBL) and GenBank at NCBI. As part of this Collaboration, all three organizations accept new sequence submissions and share sequence data among the three databases. To facilitate the exchange of data, each member of the collaboration is assigned certain accession prefixes.

Format for GenBank accession numbers:

Type	Format
Nucleotide	1 letter + 5 numerals or 2 letters + 6 numerals
Protein	3 letters + 5 numerals
WGS	4 letters + 2 numerals for WGS assembly version + 6-8 numerals
MGA	5 letters + 7 numerals

Primary GenBank accession number prefixes:

Accession prefixes	Data source
AE, CP, CY	Genome project data
U, AF, AY, DQ, EF, EU, FJ, GQ, GU, HM, HQ, JF, JN, JQ, JX, KC, KF, KJ, KM, KP, KR, KT, KU, KX, KY, MF, MG, MH	Direct submissions
AAAA-AZZZ, JAAA-JZZZ, LAAA-LZZZ, MAAA-MZZZ, NAAA-NZZZ, PAAA-PZZZ, QAAA-QZZZ, RAAA-RZZZ	Whole genome shotgun sequences
AAA-AZZ, QAA-QZZ	Protein ID
EAA-EZZ, KAA-KZZ, OAA-OZZ, PAA-PZZ	WGS protein ID

Version number suffix:

GenBank sequence identifiers consist of an accession number of the record followed by a dot and a version number (i.e. accession.version). The version number will increment by one when there is an update to the sequence record.

Format for RefSeq accession numbers:

RefSeq accession numbers do not follow the naming conventions set by INSDC — they have a two-letter prefix followed by an underscore. RefSeq records are classified as “Known RefSeq” (manually reviewed by NCBI staff or collaborators) or “Model RefSeq” (records produced by an automated annotation pipeline).

Accession prefixes	Type	Description
NC_, NG_	Known RefSeq	Genomic regions or assembly
NM_	Known RefSeq	mRNA
NR_	Known RefSeq	Non-coding RNAs
NP_	Known RefSeq	Protein
NT_, NW_	Known RefSeq	Genomic contig or scaffold
XM_	Model RefSeq	mRNA
XR_	Model RefSeq	Non-coding RNAs
XP_	Model RefSeq	Protein