

Resource Summary Report

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BY-2

RRID:CVCL_D5GM

Type: Cell Line

Proper Citation

DSMZ Cat# PC-1181, RRID:CVCL_D5GM

Cell Line Information

URL: https://web.expasy.org/cellosaurus/CVCL_D5GM

Proper Citation: DSMZ Cat# PC-1181, RRID:CVCL_D5GM

Description: Cell line BY-2 is a Spontaneously immortalized cell line with a species of origin *Nicotiana tabacum* (Common tobacco)

Defining Citation: [PMID:7766897](#), [PMID:10728644](#), [PMID:12601177](#), [PMID:14680934](#), [PMID:14688094](#), [PMID:15638240](#), [PMID:15818563](#), [PMID:16187337](#), [PMID:16664453](#), [PMID:17406390](#), [PMID:17406517](#), [PMID:17947977](#), [PMID:18567891](#), [PMID:22055919](#), [PMID:22928883](#), [PMID:29982119](#), [PMID:37642778](#)

Comments: Anecdotal: This cell line was generated at the Japan Tobacco and Salt Monopoly Public Corporation. In 1982 Toshiyuki Nagata brought it with him to the USA and left it there after renaming it to NT-1 in order to distribute it clandestinely because he was not allowed officially to give the BY-2 cell line to others. He called it NT-1 as it could both mean *Nicotiana tabacum* or Nagata, Toshiyuki (PubMed=37642778)., Characteristics: Used as model for the electrochemical sensing of beta-glucuronidase activity of transgenic cell lines (PubMed=29982119)., Characteristics: Tested for the production of viral proteins (PubMed=14680934; PubMed=12601177; PubMed=16187337)., Characteristics: Tested for the production of synthetic proteins (PubMed=15818563)., Characteristics: Tested for the production of bacterial proteins (PubMed=14688094; PubMed=22928883)., Characteristics: Tested for the production of animal proteins (PubMed=7766897)., Characteristics: Produces low levels of nicotine (PubMed=18567891)., Characteristics: Can be used to prepare protoplasts (PubMed=17947977)., Group: Plant cell line.

Category: Spontaneously immortalized cell line

Organism: *Nicotiana tabacum* (Common tobacco)

Name: BY-2

Synonyms: BY2, TBY-2, TBY2, Tobacco BY-2, NT-1, NT1, Nicotiana tabacum-1

Cross References: BTO:BTO_0001972, EFO:EFO_0022754, DSMZ:PC-1181, GEO:GSE6948, GEO:GSE6949, GEO:GSE14250, GEO:GSE37649, GEO:GSE42562, GEO:GSE111980, GEO:GSE160438, GEO:GSE193131, RIKEN_BRC_EPD:rpc00001, Wikidata:Q7811455

ID: CVCL_D5GM

Vendor: DSMZ

Catalog Number: PC-1181

Record Creation Time: 20250130T070636+0000

Record Last Update: 20260904T020830+0000

Ratings and Alerts

No rating or validation information has been found for BY-2.

No alerts have been found for BY-2.

Data and Source Information

Source: [CelloSaurus](#)

Usage and Citation Metrics

We have not found any literature mentions for this resource.