

**NLM Citation:** Drugs and Lactation Database (LactMed®) [Internet]. Bethesda (MD): National Institute of Child Health and Human Development; 2006-. Darunavir. [Updated 2024 Feb 15]. **Bookshelf URL:** https://www.ncbi.nlm.nih.gov/books/



### **Darunavir**

Revised: February 15, 2024.

CASRN: 618109-00-5

### **Drug Levels and Effects**

### **Summary of Use during Lactation**

Limited information indicates that maternal doses of darunavir up to 800 mg daily with ritonavir produce low to unmeasurable levels in milk and would not be expected to cause any adverse effects in breastfed infants. The combination of darunavir and cobicistat is expected to produce similar results. Achieving and maintaining viral suppression with antiretroviral therapy decreases breastfeeding transmission risk to less than 1%, but not zero. Individuals with HIV who are on antiretroviral therapy with a sustained undetectable viral load and who choose to breastfeed should be supported in this decision. If a viral load is not suppressed, banked pasteurized donor milk or formula is recommended.[1,2]

**Disclaimer:** Information presented in this database is not meant as a substitute for professional judgment. You should consult your healthcare provider for breastfeeding advice related to your particular situation. The U.S. government does not warrant or assume any liability or responsibility for the accuracy or completeness of the information on this Site.

**Attribution Statement:** LactMed is a registered trademark of the U.S. Department of Health and Human Services.

### **Drug Levels**

*Maternal Levels.* Four mothers taking darunavir 800 mg plus ritonavir 100 mg once daily provided milk samples at a median of 15.4 hours after a dose. The median drug concentration in milk was 316 mcg/L, which resulted in an estimated infant dosage of 50 mcg/kg daily and a relative infant dose of 0.12% of the maternal weight-adjusted dosage.[3]

*Infant Levels.* An infant was breastfed by a mother taking darunavir 800 mg plus ritonavir 100 mg once daily, although the extent of breastfeeding was not sated. The infant's serum concentrations taken 16 hours after maternal drug intake at 1 month of age was undetectable.[3]

#### **Effects in Breastfed Infants**

Relevant published information was not found as of the revision date.

#### **Effects on Lactation and Breastmilk**

Gynecomastia has been reported among men receiving highly active antiretroviral therapy. Gynecomastia is unilateral initially, but progresses to bilateral in about half of cases. No alterations in serum prolactin were noted and spontaneous resolution usually occurred within one year, even with continuation of the regimen. [4-6] Some case reports and in vitro studies have suggested that protease inhibitors might cause hyperprolactinemia and galactorrhea in some male patients, [7,8] although this has been disputed. [9] The relevance of these findings to nursing mothers is not known. The prolactin level in a mother with established lactation may not affect her ability to breastfeed.

#### References

- 1. World Health Organization. Consolidated guidelines on HIV prevention, testing, treatment, service delivery and monitoring: recommendations for a public health approach. 2021. Available at: https://www.who.int/publications/i/item/9789240031593
- 2. Department of Health and Human Services. Recommendations for the use of antiretroviral drugs during pregnancy and interventions to reduce perinatal HIV transmission in the United States. Infant feeding for individuals with HIV in the United States. 2023. Available at: https://clinicalinfohivgov/en/guidelines/perinatal/infant-feeding-individuals-hiv-united-states?view=full
- 3. Aebi-Popp K, Kahlert CR, Crisinel PA, et al. Transfer of antiretroviral drugs into breastmilk: A prospective study from the Swiss Mother and Child HIV Cohort Study. J Antimicrob Chemother 2022;77:3436-42. PubMed PMID: 36177836.
- 4. García-Benayas T, Blanco F, Martin-Carbonero L, et al. Gynecomastia in HIV-infected patients receiving antiretroviral therapy. AIDS Res Hum Retroviruses 2003;19:739-41. PubMed PMID: 14585204.
- 5. Pantanowitz L, Evans D, Gross PD, Dezube BJ. HIV-related gynecomastia. Breast J 2003;9:131-2. PubMed PMID: 12603389.
- 6. Evans DL, Pantanowitz L, Dezube BJ, Aboulafia DM. Breast enlargement in 13 men who were seropositive for human immunodeficiency virus. Clin Infect Dis 2002;35:1113-9. PubMed PMID: 12384846.
- 7. Hutchinson J, Murphy M, Harries R, Skinner CJ. Galactorrhoea and hyperprolactinaemia associated with protease-inhibitors. Lancet 2000;356:1003-4. PubMed PMID: 11041407.
- 8. Orlando G, Brunetti L, Vacca M. Ritonavir and saquinavir directly stimulate anterior pituitary prolactin secretion, in vitro. Int J Immunopathol Pharmacol 2002;15:65-8. PubMed PMID: 12593790.
- 9. Montero A, Bottasso OA, Luraghi MR, et al. Galactorrhoea, hyperprolactinaemia, and protease inhibitors. Lancet 2001;357:473-5. PubMed PMID: 11273087.

Darunavir 3

## **Substance Identification**

#### **Substance Name**

Darunavir

# **CAS Registry Number**

618109-00-5

# **Drug Class**

**Breast Feeding** 

Lactation

Milk, Human

Anti-Infective Agents

**Antiviral Agents** 

Anti-HIV Agents

Anti-Retroviral Agents

HIV Protease Inhibitors