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# **Abatacept**

Revised: January 15, 2024.

CASRN: 332348-12-6

## **Drug Levels and Effects**

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

Abatacept is a large fusion protein that interferes with T-cell activation. It has a molecular weight of 92,000, so only small amounts are expected to enter breastmilk and absorbed by the infant.[1] One case report indicates that amounts in milk are very low and do not appear to affect the breastfed infant. Waiting for at least 2 weeks postpartum to resume therapy may minimize transfer to the infant.[2] Some professional guidelines consider abatacept to be acceptable during breastfeeding.[3,4] However, until more information is available an alternate drug may be preferred, especially while nursing a newborn or preterm infant.

### **Drug Levels**

Maternal Levels. A woman with rheumatoid arthritis resumed weekly doses of abatacept 125 mg subcutaneously 2 days after delivery. Maternal serum and breastmilk samples were obtained after the 9th and 10th doses. Peak abatacept concentrations in milk occurred at about 3 days after each dose at 256 mcg/L. Prior to the next dose, the trough concentration was 170 mcg/L. The authors estimated the daily infant dose to be between 25 and 38 mcg/kg, which translates into a weight-adjusted percent of maternal dosage of 1 to 1.5% (median 1.3%).[5]

Two lactating women who were receiving abatacept for rheumatoid arthritis donated milk samples for analysis. The first, who was receiving a subcutaneous dose of 125 mg once weekly, had a peak milk level of about 200 mcg/L at 3 days after the dose and a level of about 100 mcg/L at 7 days after the dose. The second, who was receiving an intravenous dose of 500 mg every 2 weeks, had a peak milk level of about 100 mcg/L at 3 days after the dose and a level of about 50 mcg/L at 7 days after the dose.[6]

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

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

A woman with rheumatoid arthritis resumed weekly doses of abatacept 125 mg subcutaneously 2 days after delivery. Her infant was exclusively breastfed, reportedly up until 12 months of age. Her infant had no adverse

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effects and developed normally during this time. She also received routine childhood vaccinations at 3 months of age as well as rotavirus and BCG vaccination at 6 months of age. No infections or adverse immune reactions were seen following the vaccinations.[5]

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

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

### **Alternate Drugs to Consider**

(Rheumatoid Arthritis) Adalimumab, Certolizumab Pegol, Etanercept, Infliximab, Tocilizumab

#### References

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- 5. Saito J, Yakuwa N, Takai C, et al. Abatacept concentrations in maternal serum and breast milk during breastfeeding and an infant safety assessment: A case study. Rheumatology (Oxford) 2019;58:1692-4. PubMed PMID: 31323087.
- 6. Saito J, Yakuwa N, Hosokawa Y, et al. Establishment of a measurement system to evaluate breast milk transfer of biological agents using dry filter paper: A multi-institutional study. Br J Clin Pharmacol 2024;90:146–57. PubMed PMID: 37548054.

### **Substance Identification**

#### **Substance Name**

Abatacept

## **CAS Registry Number**

332348-12-6

### **Drug Class**

**Breast Feeding** 

Lactation

Milk, Human

**Antirheumatic Agents**