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Palivizumab

Revised: November 15, 2023.

CASRN: 188039-54-5

Drug Levels and Effects

Summary of Use during Lactation

No information is available on the clinical use of palivizumab during breastfeeding. Because palivizumab is a large protein molecule with a molecular weight of about 148,000 Da, the amount in milk is likely to be very low.[1] Palivizumab appears to be degraded in the infant's gastrointestinal tract by about 20% after 1 hour and up to 36% at 2 hours in one study and 50 to 62% in others.[2-5] Normal maternal milk antibodies against respiratory syncytial virus are not degraded under the same conditions.[2] Absorption of the undigested antibodies by the infant is probably minimal.[6]

Drug Levels

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

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

Effects in Breastfed Infants

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

Effects on Lactation and Breastmilk

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

References

1. Stratigakis A, Paty D, Zou P, et al. A regression approach for assessing large molecular drug concentration in breast milk. Reprod Breed 2023;3:199-207. doi:10.1016/j.repbre.2023.10.003
2. Lueangsakulthai J, Sah BNP, Scottoline BP, Dallas DC. Survival of recombinant monoclonal antibodies (IgG, IgA and sIgA) versus naturally-occurring antibodies (IgG and sIgA/IgA) in an ex vivo infant digestion model. Nutrients 2020;12:621. PubMed PMID: 32120792.

3. Demers-Mathieu V, Lueangsakulthai J, Qu Y, et al. Binding and neutralizing capacity of respiratory syncytial virus (RSV)-specific recombinant IgG against RSV in human milk, gastric and intestinal fluids from infants. Nutrients 2020;12:1904. PubMed PMID: 32605037.
4. Sah BNP, Lueangsakulthai J, Kim BJ, et al. Partial degradation of recombinant antibody functional activity during infant gastrointestinal digestion: Implications for oral antibody supplementation. Front Nutr 2020;7:130. PubMed PMID: 32923453.
5. Lueangsakulthai J, Sah BNP, Scottoline BP, Dallas DC. Survival of recombinant monoclonal and naturally-occurring human milk immunoglobulins A and G specific to respiratory syncytial virus F protein across simulated human infant gastrointestinal digestion. J Funct Foods 2020;73:104115. PubMed PMID: 33101461.
6. Anderson PO. Monoclonal antibodies during breastfeeding. Breastfeed Med 2021;16:591-3. PubMed PMID: 33956488.

Substance Identification

Substance Name

Palivizumab

CAS Registry Number

188039-54-5

Drug Class

Breast Feeding

Lactation

Milk, Human

Antibodies, Monoclonal

Antibodies, Viral

Antiviral Agents