

Budesonide (Cas No 51333-22-3)

CAS number 51333-22-3

ATC code A07EA06 D07AC09, R01AD05, R03BA02

structural formula is:

Formula C₂₅H₃₄O₆ Mol. mass 430.534 g/mol

SMILES eMolecules & PubChem

Its partition coefficient between octanol and water at pH 5 is 1.6 x 10.3

Pharmacokinetic data

Bioavailability 100% (but large first pass effect)

Protein binding 85-90%

Metabolism Hepatic CYP3A4

Half life 2.0-3.6 hours

Excretion Renal, Faecal

Chemical data

Budesonide is designated chemically as (RS)-11-beta, 16-alpha, 17, 21-tetrahydroxypregna-1, 4-diene-3,20-dione cyclic 16, 17-acetal with butyraldehyde.

Budesonide is provided as the mixture of two epimers (22R and 22S).

The empirical formula of budesonide is C₂₅H₃₄O₆ and its molecular weight is 430.5.

Budesonide is a white to off-white, odorless powder that is practically insoluble in water and in heptane, sparingly soluble in ethanol, and freely soluble in chloroform.