

Bupropion Hcl (Cas No 31677-93-7)

Product Name: Bupropion HCl

Structure:

Application: Antidepressant

CAS Number: 31677-93-7

Molecular Formula: C₁₃H₁₉Cl₂NO

Molecular weight: 276.20

Chemical data

Formula C₁₃H₁₈ClNO Mol. mass 239.74 g/mol

SMILES eMolecules & PubChem

Pharmacokinetic data

Bioavailability 5 to 20% in animals; no studies in humans

Metabolism Hepatic—important CYP2B6 and 2D6 involvement

Half life 20 hours

Excretion Renal (87%), fecal (10%)

Pharmacology of bupropion and its metabolites.[105][106][107][95][108] Exposure (concentration over time; bupropion exposure = 100%) and half-life

Bupropion R,R-

Hydroxy

bupropion S,S-

Hydroxy

bupropion Threo-

hydro

bupropion Erythro-

hydro

bupropion

Exposure 100% 800% 160% 310% 90%

Half-life 10 h (IR)

17 h (SR) 21 h 25 h 26 h 26 h

Inhibition potency (potency of DA uptake inhibition by bupropion = 100%)

DA uptake 100% 0% (rat) 70% (rat) 4% (rat) No data

NE uptake 27% 0% (rat) 106% (rat) 16% (rat) No data

Ser uptake 2% 0% (rat) 4%(rat) 3% (rat) No data

α3β4 nicotinic 53% 15% 10% 7% (rat) No data

α4β2 nicotinic 8% 3% 29% No data No data

α1* nicotinic 12% 13% 13% No data No data

DA = dopamine; NE = norepinephrine; Ser = serotonin.