

Rilpivirine Tablets - Topsert / Open Size: 790 x 400mm / Folding Size: 32 x 32 mm / Paper: 28 gsm Bible Paper / Gluing: Yes / Back - KLD



Stop taking rilpivirine tablets and get medical help right away if you develop a rash with any of the following signs or symptoms:

- o fever
- o generally ill feeling
- o tiredness
- o muscle or joint aches
- o difficulty breathing or swallowing
- o blisters or mouth sores
- o skin blisters
- o redness or swelling of the eyes (conjunctivitis)
- o swelling of the face, lips, mouth, tongue, or throat

Liver problems. People with a history of hepatitis B or C virus infection or who have certain liver function test changes may have an increased risk of developing new or worsening changes in certain liver tests during treatment with rilpivirine tablets. Liver problems have also happened in people without a history of problems or other risk factors. Your healthcare provider may need to do tests to check your liver function before and during treatment with rilpivirine tablets. **Call your healthcare provider right away if you develop any of the following signs or symptoms of liver problems:**

- o your skin or the white part of your eyes turns yellow (jaundice)
- o loss of appetite
- o light colored stools (bowel movements)
- o dark or "tea colored" urine
- o pain, achiness, or tenderness on the right side of the stomach area
- o nausea or vomiting

Depression or mood changes. Call your healthcare provider right away if you have any of the following symptoms:

- o feeling sad or hopeless
- o feeling anxious or restless
- o have thoughts of hurting yourself (suicide) or have tried to hurt yourself

Changes in your immune system (Immune Reconstitution Syndrome) can happen when you start taking HIV medicines. Your immune system may get stronger and begin to fight infections that have been hidden in your body for a long time. Tell your healthcare provider right away if you start having any new symptoms after starting your HIV-1 medicine.

The most common side effects of rilpivirine tablets include depression, headache, trouble sleeping (insomnia) and rash.

These are not all the possible side effects of rilpivirine tablets. Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

How should I store rilpivirine tablets?

- Store rilpivirine tablets at room temperature between 68°F to 77°F (20°C to 25°C).
- Keep rilpivirine tablets in the original bottle to protect from light.
- Keep rilpivirine tablets and all medicines out of the reach of children.

General information about the safe and effective use of rilpivirine tablets.

Medicines are sometimes prescribed for purposes other than those listed in a Patient Information leaflet. Do not use rilpivirine tablets for a condition for which it was not prescribed. Do not give rilpivirine tablets to other people even if they have the same condition you have. It may harm them. You can ask your healthcare provider or pharmacist for information about rilpivirine tablets that is written for health professionals.

What are the ingredients in rilpivirine tablets?

Active ingredient: rilpivirine.

Inactive ingredients:

Rilpivirine 25 mg tablets: croscarmellose sodium, lactose monohydrate, magnesium stearate, polyborate 20, povidone K30, and silicified microcrystalline cellulose. The tablet coating contains hypromellose 2910 6 mPa.s, lactose monohydrate, polyethylene glycol 300, titanium dioxide and triacetin.

Additional pediatric use information is approved for Janssen Products LP's Edurant (Rilpivirine) tablets. However, due to Janssen Products LP's marketing exclusivity rights, this drug product is not labeled with that information.

Manufactured for: Somers Therapeutics, LLC, Somers, NJ 08873

Made in India

EDURANT® is a registered trademark of Johnson & Johnson and is used herein for reference purposes only. All other trademarks referenced herein are the property of their respective owners.

For more information contact Somers Therapeutics, LLC at 1-800-417-9175

This Patient Information has been approved by the U.S. Food and Drug Administration.

Revised 01/2026

Pharmacokinetics of rilpivirine (mean ± SD, median [range])	Postpartum (8 - 12 Weeks)	2 nd Trimester of pregnancy (n=13)	3 rd Trimester of pregnancy (n=13)
C ₀ (ng/mL)	111±69.2	65.0±23.9	63.5±26.2
C ₁ (ng/mL)	84.0±25.8	54.3±25.8	52.9±24.4
C ₂ (ng/mL)	187±101	121±45.9	122±47.5
t _{1/2} (h)	4.00 (2.03-24.08)	4.60 (1.00-20.00)	4.00 (2.00-24.03)
AUC ₀₋₂₄ (ng·h/mL)	2714±1555	1792±711	1762±662

Pharmacokinetics of rilpivirine (Mean±SD, median [range])

Pharmacokinetics of rilpivirine (Mean±SD, median [range])	25 mg once daily
C ₀ (ng/mL)	34
AUC ₀₋₂₄ (ng·h/mL)	2424±1024
C ₁ (ng/mL)	2269 (117 - 5166)
t _{1/2} (h)	79 (7 - 202)

The 25 mg dose was administered as one 25 mg tablet.

Additional pediatric use information is approved for Janssen Products LP's Edurant (Rilpivirine) tablets. However, due to Janssen Products LP's marketing exclusivity rights, this drug product is not labeled with that information.

Renal Impairment

Pharmacokinetic analysis indicated that rilpivirine exposure was similar in HIV-1 infected subjects with mild renal impairment relative to HIV-1 infected subjects with normal renal function. No dose adjustment is required in patients with mild renal impairment. There is limited or no information regarding the pharmacokinetics of rilpivirine in patients with moderate or severe renal impairment or in patients with end-stage renal disease, and rilpivirine concentrations may be increased due to alteration of drug absorption, distribution, and metabolism secondary to renal dysfunction. The potential impact is not expected to be of clinical relevance for HIV-1 infected subjects with moderate renal impairment, and no dose adjustment is required in these patients. Rilpivirine should be used with caution and with increased monitoring for adverse effects in patients with severe renal impairment or end-stage renal disease. As rilpivirine is highly bound to plasma proteins, it is unlikely that it will be significantly removed by hemodialysis or peritoneal dialysis (see **Use in Specific Populations** § 6.6).

Hepatic Impairment

Rilpivirine is primarily metabolized and eliminated by the liver. In a study comparing 8 subjects with mild hepatic impairment (Child-Pugh score A) to 8 matched controls, and 8 subjects with moderate hepatic impairment (Child-Pugh score B) to 8 matched controls, the multiple dose exposure of rilpivirine was 47% higher in subjects with mild hepatic impairment and 25% higher in subjects with moderate hepatic impairment. Rilpivirine tablets has not been studied in subjects with severe hepatic impairment (Child-Pugh score C) (see **Use in Specific Populations** § 6.7).

Sex, Race, Hepatitis B and/or Hepatitis C Virus Co-infection

No clinically relevant differences in the pharmacokinetics of rilpivirine have been observed between sex, race and patients with hepatitis B and/or C virus co-infection.

Additional pediatric use information is approved for Janssen Products LP's Edurant (Rilpivirine) tablets. However, due to Janssen Products LP's marketing exclusivity rights, this drug product is not labeled with that information.

6.5 Genotoxicity

Clinical studies of rilpivirine tablets did not include sufficient numbers of subjects aged 65 and over to determine whether they respond differently from younger subjects. In general, caution should be exercised in the administration and monitoring of rilpivirine tablets in elderly subjects reflecting the greater frequency of decreased renal and hepatic function, and of concomitant disease or other drug therapy.

6.6 Renal Impairment

No dose adjustment of rilpivirine tablets is required in patients with mild or moderate renal impairment. However, in patients with severe renal impairment or end-stage renal disease, rilpivirine should be used with caution and with increased monitoring for adverse effects, as rilpivirine exposure may be increased due to alteration of drug absorption, distribution, and metabolism secondary to renal dysfunction. As rilpivirine is highly bound to plasma proteins, it is unlikely that it will be significantly removed by hemodialysis or peritoneal dialysis (see **Clinical Pharmacology** § 7.2.3).

6.7 Hepatic Impairment

No change adjustment of rilpivirine tablets is required in patients with mild (Child-Pugh Class A) or moderate (Child-Pugh Class B) hepatic impairment. Rilpivirine has not been studied in patients with severe hepatic impairment (Child-Pugh Class C) (see **Clinical Pharmacology** § 7.2.3).

10 OVERDOSEAGE

There is no specific antidote for overdose with rilpivirine tablets. Human experience of overdose with rilpivirine tablets are limited. Treatment of overdose with rilpivirine tablets consists of general supportive measures including monitoring of vital signs and ECG (QT interval) as well as observation of the clinical status of the patient. It is advisable to contact a poison control center to obtain the latest recommendations for the management of an overdose. Since rilpivirine is highly bound to plasma proteins, dialysis is unlikely to result in significant removal of the active substance.

11 DESCRIPTION

Rilpivirine tablets are a non-nucleoside reverse transcriptase inhibitor (NNRTI) of human immunodeficiency virus type 1 (HIV-1).

The chemical name for rilpivirine hydrochloride is 4-[4-[[[4-(8-[2-cyanoethoxy]-2,6-dimethylphenylamino)-2-pyrimidinylamino]benzothiazole-5-carboxamide], 6-methylcarbamoyloxy]benzyl]piperazine-2-carboxamide hydrochloride, and its molecular weight is 462.26. Rilpivirine hydrochloride has the following structural formula:

CN1CC[C@H](C2=CC=C(C=C2)N1)C(=O)OCC3=CC=C(C=C3)C(=O)N4C=NC=C(C=C4)N5C=CC(=O)N5

Rilpivirine hydrochloride is a white to off-white powder. Rilpivirine hydrochloride is practically insoluble in water over a wide pH range. Rilpivirine 25 mg tablets are available as a white to off-white, film-coated, round, biconvex, 6.5 mm tablet for oral administration. Each tablet contains 27.5 mg of rilpivirine hydrochloride, which is equivalent to 25 mg of rilpivirine. Each rilpivirine 25 mg tablet also contains the inactive ingredients croscarmellose sodium, lactose monohydrate, magnesium stearate, polyborate 20, povidone K30, and silicified microcrystalline cellulose. The tablet coating contains hypromellose 2910 6 mPa.s, lactose monohydrate, polyethylene glycol 300, titanium dioxide and triacetin.

12 CLINICAL PHARMACOLOGY

12.1 Mechanism of Action

Rilpivirine is an antiviral drug (see **Microbiology** § 12.4).

12.2 Pharmacodynamics

Effects on Electrocardiogram

The effect of rilpivirine tablets at the recommended dose of 25 mg once daily on the QTcF interval was evaluated in a randomized, placebo and active controlled study in 60 healthy adults, with 13 measurements over 24 hours at steady state. The maximum mean time-matched (80% upper confidence bound) differences in QTcF interval from placebo after baseline-correction was 2.0 (5.0 milliseconds) (i.e., below the threshold of clinical concern).

When doses of 75 mg once daily and 300 mg once daily of rilpivirine tablets (3 times and 12 times the dose in rilpivirine tablets were studied in healthy adults, the maximum mean time-matched (80% upper confidence bound) differences in QTcF interval from placebo after baseline-correction were 1.7 (15.3) and 2.3 (24.4) milliseconds, respectively. Steady-state administration of rilpivirine tablet 75 mg once daily and 300 mg once daily resulted in a mean steady-state C₀, approximately 2-fold and 4-fold, respectively, higher than the mean C₀ observed with the recommended 25 mg once daily dose of rilpivirine tablets (see **Warnings and Precautions** § 4).

12.3 Pharmacokinetics

Pharmacokinetics in Adults

The pharmacokinetic properties of rilpivirine have been evaluated in adult healthy subjects and in adult antiretroviral treatment-naïve HIV-1 infected subjects. Exposure to rilpivirine was generally lower in HIV-1 infected subjects than in healthy subjects.

Table 7: Pharmacokinetic Estimates of Rilpivirine 25 mg Once Daily in Antiretroviral Treatment-Naïve HIV-1-Infected Adult Subjects (Pooled Data from Phase 2 Trials through Week 96)

Parameter	Rilpivirine 25 mg once daily (n=79)
AUC ₀₋₂₄ (ng·h/mL)	2235±811
Mean±Standard Deviation	2235±811
Median (Range)	2096 (198 - 7507)
C ₀ (ng/mL)	34
Mean±Standard Deviation	34
Median (Range)	73 (2 - 288)

Effects of Food on Oral Absorption

The relative bioavailability was approximately 40% lower when rilpivirine tablets were taken in a fasting condition as compared to a normal caloric meal (533 kcal) or a high-fat high-caloric meal (920 kcal). When rilpivirine tablets were taken with only a protein-rich nutritional drink, exposures were 50% lower than when taken with a meal.

Distribution

Rilpivirine is approximately 96.7% bound to plasma proteins in vivo, primarily to albumin. The distribution of rilpivirine into compartments other than plasma (e.g., cerebrospinal fluid, genital tract secretions) has not been evaluated in humans.

Metabolism

In vivo experiments indicate that rilpivirine primarily undergoes oxidative metabolism mediated by the cytochrome P450 (CYP) 3A system.

Elimination

The terminal elimination half-life of rilpivirine is approximately 50 hours. After single dose oral administration of ¹⁴C-rilpivirine, an average 80% and 61% of the radioactivity could be retrieved in feces and urine, respectively, of which, unchanged rilpivirine accounted for an average 25% of the radioactivity dose. Only trace amounts of unchanged rilpivirine (<1% of dose) were detected in urine.

Specific Populations

Pregnancy and Postpartum

The exposure (C₀ and AUC₀₋₂₄) to total rilpivirine after intake of rilpivirine 25 mg once daily as part of an antiretroviral regimen was 30 to 40% lower during pregnancy (similar for the second and third trimester), compared with postpartum (see **Table 8**). However, the exposure during pregnancy was not significantly different from exposures obtained in Phase 3 trials. Based on the exposure-response relationship for rilpivirine, this decrease is not considered clinically relevant in patients who are virologically suppressed. The protein binding of rilpivirine was similar (>96%) during the second trimester, third trimester, and postpartum.

Table 8: Pharmacokinetic Results of Total Rilpivirine After Administration of Rilpivirine 25 mg Once Daily as Part of an Antiretroviral Regimen, During the 2nd Trimester of Pregnancy, the 3rd Trimester of Pregnancy and Postpartum

Pharmacokinetics of total rilpivirine (mean ± SD, median [range])	Postpartum (8 - 12 Weeks)	2 nd Trimester of pregnancy (n=13)	3 rd Trimester of pregnancy (n=13)
C ₀ (ng/mL)	111±69.2	65.0±23.9	63.5±26.2
C ₁ (ng/mL)	84.0±25.8	54.3±25.8	52.9±24.4
C ₂ (ng/mL)	187±101	121±45.9	122±47.5
t _{1/2} (h)	4.00 (2.03-24.08)	4.60 (1.00-20.00)	4.00 (2.00-24.03)
AUC ₀₋₂₄ (ng·h/mL)	2714±1555	1792±711	1762±662

Pharmacokinetics of rilpivirine in HIV-1 infected pediatric patients 12 to less than 18 years of age receiving the recommended dosing regimen of rilpivirine tablets were comparable to those obtained in treatment-naïve HIV-1 infected adult patients (see **Table 9).**

Table 9: Pharmacokinetic Estimates of Rilpivirine After Administration of the Recommended Daily Oral Dosing Regimen in Pediatric Patients 12 to <18 Years (n=17) (TM279-C21)*

Pharmacokinetics of rilpivirine (Mean±SD, median [range])	25 mg once daily
C ₀ (ng/mL)	34
AUC ₀₋₂₄ (ng·h/mL)	2424±1024
C ₁ (ng/mL)	2269 (117 - 5166)
t _{1/2} (h)	79 (7 - 202)

The 25 mg dose was administered as one 25 mg tablet.

Additional pediatric use information is approved for Janssen Products LP's Edurant (Rilpivirine) tablets. However, due to Janssen Products LP's marketing exclusivity rights, this drug product is not labeled with that information.

Renal Impairment

Pharmacokinetic analysis indicated that rilpivirine exposure was similar in HIV-1 infected subjects with mild renal impairment relative to HIV-1 infected subjects with normal renal function. No dose adjustment is required in patients with mild renal impairment. There is limited or no information regarding the pharmacokinetics of rilpivirine in patients with moderate or severe renal impairment or in patients with end-stage renal disease, and rilpivirine concentrations may be increased due to alteration of drug absorption, distribution, and metabolism secondary to renal dysfunction. The potential impact is not expected to be of clinical relevance for HIV-1 infected subjects with moderate renal impairment, and no dose adjustment is required in these patients. Rilpivirine should be used with caution and with increased monitoring for adverse effects in patients with severe renal impairment or end-stage renal disease. As rilpivirine is highly bound to plasma proteins, it is unlikely that it will be significantly removed by hemodialysis or peritoneal dialysis (see **Use in Specific Populations** § 6.6).

Hepatic Impairment

Rilpivirine is primarily metabolized and eliminated by the liver. In a study comparing 8 subjects with mild hepatic impairment (Child-Pugh score A) to 8 matched controls, and 8 subjects with moderate hepatic impairment (Child-Pugh score B) to 8 matched controls, the multiple dose exposure of rilpivirine was 47% higher in subjects with mild hepatic impairment and 25% higher in subjects with moderate hepatic impairment. Rilpivirine tablets has not been studied in subjects with severe hepatic impairment (Child-Pugh score C) (see **Use in Specific Populations** § 6.7).

Sex, Race, Hepatitis B and/or Hepatitis C Virus Co-infection

No clinically relevant differences in the pharmacokinetics of rilpivirine have been observed between sex, race and patients with hepatitis B and/or C virus co-infection.

Drug Interactions

(See **Contraindications** § 4 and **Drug Interactions** § 7).

Rilpivirine is primarily metabolized by cytochrome P450 (CYP)3A, and drugs that induce or inhibit CYP3A may thus affect the clearance of rilpivirine. Coadministration of rilpivirine and drugs that induce CYP3A may result in decreased plasma concentrations of rilpivirine and loss of virologic response and possible resistance. Coadministration of rilpivirine and drugs that inhibit CYP3A may result in increased plasma concentrations of rilpivirine and loss of virologic response and possible resistance to rilpivirine and to the class of NNRTIs.

Rilpivirine tablets at the recommended doses are not likely to have a clinically relevant effect on the exposure of medicinal products metabolized by CYP enzymes.

Drug interaction studies were performed with rilpivirine and other drugs likely to be coadministered or commonly used as probes for pharmacokinetic interactions. The effects of coadministration of other drugs on the C₀, AUC, and C₂₄ values of rilpivirine are summarized in Table 11 (effect of other drugs on rilpivirine). The effect of coadministration of rilpivirine on the C₀, AUC, and C₂₄ values of other drugs are summarized in Table 12 (effect of rilpivirine on other drugs). For information regarding clinical recommendations, see **Drug Interactions** § 7.

Table 11: Drug Interactions: Pharmacokinetic Parameters for Rilpivirine in the Presence of Coadministered Drugs

Coadministered Drug	Dose/Schedule	Mean Ratio of Rilpivirine Pharmacokinetic Parameters With/Without Coadministered Drug (90% CI; No Effect=1.0)				
		Rilpivirine	N	C ₀	AUC	C ₂₄
Darunavirine	800/100 mg q.d.	150 mg q.d. ¹	14	1.79	2.30	2.78
				(1.66-2.06)	(1.86-2.57)	(2.29-3.24)
Lopinavirine/ritonavir (soft pill capsules)	400/100 mg b.i.d.	150 mg q.d. ¹	15	1.29	1.52	1.74
				(1.18-1.42)	(1.36-1.70)	(1.46-2.00)
Dolutegravir	400 mg q.d. delayed release capsules taken 2 hours before rilpivirine	150 mg q.d. ¹	21	1.00	1.00	1.00
				(0.99-1.10)	(0.95-1.06)	(0.92-1.09)
Tenofovir disoproxil fumarate	300 mg q.d.	150 mg q.d. ¹	16	0.96	1.01	0.99
				(0.81-1.13)	(0.87-1.18)	(0.83-1.16)
Cabotegravir	30 mg q.d.	25 mg q.d. ²	11	0.86	0.89	0.92
				(0.85-1.09)	(0.89-1.09)	(0.79-1.07)
Raltegravir	400 mg b.i.d.	25 mg q.d. ²	23	1.12	1.12	1.13
				(1.04-1.20)	(1.05-1.19)	(1.06-1.12)
Simeprevir	150 mg q.d.	25 mg q.d. ²	23	1.04	1.13	1.25
				(0.85-1.13)	(1.05-1.19)	(1.06-1.32)

Coadministered With HIV Protease Inhibitors (PIs)

Darunavirine 800/100 mg q.d. 150 mg q.d.¹ 14 1.79 2.30 2.78 (1.66-2.06) (1.86-2.57) (2.29-3.24)

Lopinavirine/ritonavir (soft pill capsules) 400/100 mg b.i.d. 150 mg q.d.¹ 15 1.29 1.52 1.74 (1.18-1.42) (1.36-1.70) (1.46-2.00)

Coadministered With HIV Nucleoside or Nucleotide Reverse Transcriptase Inhibitors (NRTIs/NURTIs)

Dolutegravir 400 mg q.d. delayed release capsules taken 2 hours before rilpivirine 150 mg q.d.¹ 21 1.00 1.00 1.00 (0.99-1.10) (0.95-1.06) (0.92-1.09)

Tenofovir disoproxil fumarate 300 mg q.d. 150 mg q.d.¹ 16 0.96 1.01 0.99 (0.81-1.13) (0.87-1.18) (0.83-1.16)

Coadministered With HIV Integrase Strand Transfer Inhibitors

Cabotegravir 30 mg q.d. 25 mg q.d.² 11 0.86 0.89 0.92 (0.85-1.09) (0.89-1.09) (0.79-1.07)

Raltegravir 400 mg b.i.d. 25 mg q.d.² 23 1.12 1.12 1.13 (1.04-1.20) (1.05-1.19) (1.06-1.12)

Coadministered With Other Antivirals

Simeprevir 150 mg q.d. 25 mg q.d.² 23 1.04 1.13 1.25 (0.85-1.13) (1.05-1.19) (1.06-1.32)

Coadministered With Drugs other than Antiretrovirals

Acetaminophen 500 mg single dose 150 mg q.d.¹ 16 1.09 1.16 1.26 (1.01-1.22) (1.06-1.29) (1.16-1.38)

Atorvastatin 40 mg q.d. 150 mg q.d.¹ 16 0.91 0.90 0.90 (0.79-1.06) (0.81-0.99) (0.84-0.96)

Chlorzoxazone 500 mg single dose taken 2 hours after rilpivirine 150 mg q.d.¹ 16 1.17 1.17 1.17 (1.08-1.27) (1.16-1.32) (1.09-1.28)

Ethynodiol diacetate 0.035 mg q.d./0.7 mg q.d. 25 mg q.d.¹ 15 *** **

Famotidine 40 mg single dose taken 12 hours before rilpivirine 150 mg single dose² 24 0.99 0.91 N.A. (0.84-1.16) (0.78-1.07)

Famotidine 40 mg single dose taken 2 hours before rilpivirine 150 mg single dose² 23 1.15 1.13 N.A. (1.00-1.27) (1.05-1.27)

Famotidine 40 mg single dose taken 4 hours after rilpivirine 150 mg single dose² 24 1.21 1.13 N.A. (1.06-1.38) (1.09-1.27)

Ketoconazole 400 mg q.d. 150 mg q.d.¹ 15 1.30 1.48 1.76 (1.13-1.48) (1.31-1.70) (1.57-1.97)

Mefenamic acid 600-100 mg q.d., individualized dose 25 mg q.d.¹ 12 0.60 0.60 ** (0.48-0.73) (0.51-0.71) (0.58-0.78)

Misoprostol 20 mg q.d. 150 mg q.d.¹ 16 0.60 0.60 ** (0.48-0.73) (0.52-0.65) (0.46-0.58)

Ribavirin 300 mg q.d. 25 mg q.d.¹ 18 1.43 1.16 0.93 (1.30-1.58) (1.01-1.28) (0.85-1.01)

Ribavirin 300 mg q.d. 50 mg q.d.¹ 18 1.43 1.16 0.93 (1.30-1.58) (1.01-1.28) (0.85-1.01)

12.4 Microbiology

Mechanism of Action

Rilpivirine is a diarylpyrimidine non-nucleoside reverse transcriptase inhibitor (NNRTI) of human immunodeficiency virus type 1 (HIV-1) and inhibits HIV replication by non-competitive inhibition of HIV-1 reverse transcriptase (RT). Rilpivirine does not inhibit the human cellular DNA polymerase β (Pol β).

Antiviral Activity in Cell Culture

Rilpivirine exhibited activity against laboratory strains of wild-type HIV-1 in an acutely infected T-cell line with a median EC₅₀ value for HIV-1_{AD8} of 0.2 nM (0.27 nM). Rilpivirine demonstrated broad activity in cell culture against HIV-2 with a median EC₅₀ value of 520 nM (range 2510 to 16830 nM) (EC₅₀ to 3970 nM).

Rilpivirine demonstrated antiviral activity against a broad panel of HIV-1 group B isolates A, B, C, D, E, G, H, primary isolates with EC₅₀ values ranging from 0.7 to 1.01 nM (0.03 to 0.37 nM) and was less active against HIV-2 with a median EC₅₀ value of 520 nM (range 2510 to 845 nM) (EC₅₀ to 319 nM).

The antiviral activity of rilpivirine was not antagonistic when combined with the NRTIs efavirenz, abacavir, or nevirapine; the NNRTIs efavirenz, emtricitabine, lamivudine, stavudine, tenofovir, or zalcitabine; the PI amprenavir, abacavir, darunavir, indinavir, nelfinavir, ritonavir, saquinavir or tipranavir; the fusion inhibitor enfavir, the CCR5 co-receptor antagonist maraviroc, or the integrase strand transfer inhibitor raltegravir.

Resistance

In cell culture, rilpivirine-resistant strains were selected in cell culture starting with wild-type HIV-1 of different origins and subtypes as well as NNRTI resistant HIV-1. The frequently observed amino acid substitutions that emerged and conferred decreased phenotypic susceptibility to rilpivirine included: Y181C, K101E, Y181F and A, Y181E, E138K and A, Q, R, V177F and A, and Y181C, Y181F, Y181E, G190E, H212Y, F227Y and M230I and A.

In Treatment-Naïve Adult Subjects

In the Week 96 pooled resistance analysis of the Phase 3 trials TM279-C209 and TM279-C215, the emergence of resistance was greater among subjects' viruses in the rilpivirine arm compared to the efavirenz arm, and was dependent on baseline viral load in the pooled resistance analysis. 50% (57/86) of the subjects who qualified for resistance analysis (resistance analysis subjects) in the rilpivirine arm had virus with genotypic and/or phenotypic resistance to rilpivirine compared to 24% (25/103) of the resistance analysis subjects in the efavirenz arm who had genotypic and/or phenotypic resistance to efavirenz. Moreover, genotypic and/or phenotypic resistance to a background drug (lamivudine, lamivudine, tenofovir disoproxil fumarate or zalcitabine) emerged in viruses from 52% (51/86) of the resistance analysis subjects in the rilpivirine arm compared to 23% (11/59) in the efavirenz arm.

Emerging NNRTI substitutions in the rilpivirine resistance analysis of subjects' viruses included: K101E/P1, E138K/Q43, V178L, Y181C, H183A, H212Y, F227Y, and M230I, which were associated with a rilpivirine phenotypic fold change range of 2.6 - 621. The E138K substitution emerged most frequently during rilpivirine treatment commonly in combination with the M184I substitution. The emtricitabine and lamivudine resistance-associated substitutions M184V and Y181C resistance-associated substitutions M69R, A62D, D97N/S, K70E, Y112, Y121/S157, or K219R emerged more frequently in rilpivirine resistance analysis subjects compared to efavirenz resistance analysis subjects (see **Table 13**).

NNRTI- and NRTI-resistance substitutions emerged less frequently in resistance analysis of viruses from subjects with baseline viral load \leq 100,000 copies/mL compared to viruses from subjects with baseline viral load $>$ 100,000 copies/mL. 26% (14/54) compared to 74% (40/54) NNRTI-resistance substitutions and 22% (11/50) compared to 39% (20/51) of NRTI-resistance substitutions. This difference was also observed for the emtricitabine and lamivudine and tenofovir resistance substitutions 23% (11/47) compared to 77% (35/47) for M184V and 0% (0/8) compared to 100% (8/8) for K69R. Additionally, NNRTI- and NRTI-resistance substitutions emerged less frequently in the resistance analysis of HIV-1 RNA $<$ 50 copies/mL compared to HIV-1 RNA \geq 50 copies/mL. 24% (10/42) compared to 33% (14/42) NNRTI-resistance substitutions and 28% (14/50) compared to 72% (36/50) of NRTI-resistance substitutions.

Table 13: Proportion of Resistance Analysis Subjects with Frequently Emerging Reverse Transcriptase Substitutions from the Pooled Phase 3 Trials TM279-C209 and TM279-C215 Trials in the Week 96 Analysis

Substitutions	TM279-C209 and TM279-C215	
	Rilpivirine + BR (n=86)	Efavirenz + BR (n=103)
Subjects who Qualified for Resistance Analysis	57 (66%)	51 (50%)
Subjects with Evaluable Post-Baseline Resistance Data	87	43
Emerging NNRTI Substitutions*		
Y181C	65% (24/37)	53% (23/43)
E138K	13% (5/37)	10% (4/43)
V178L	13% (11/87)	2% (1/43)
K101E/P1/Q1	20% (17/87)	9% (4/43)
K101E	1% (1/87)	40% (17/43)
E138K/A43	40% (26/	

Product	Rilpivirine tablets 25 mg
Component	Topsert
Dimension	Open Size : 790 mm x 400 mm Folded Size : 32 mm x 32 mm
Remarks	Artwork revised as per FDA recommendation

Printable Colours:



Black