Ofloxacin is a fluorinated 6-membered heterocyclic compound containing two aromatic rings and a nitrogen atom directly bound to one of the rings. It is a synthetic fluoroquinolone antibacterial agent.

**Chemical Structure**

Ofloxacin's molecular formula is C_{18}H_{18}FN_{3}O_{3}S, and its molecular weight is 391.43 g/mol. It is a white crystalline powder that is relatively stable under normal storage conditions.

**Pharmacodynamics**

- Ofloxacin inhibits DNA gyrase, a bacterial enzyme required for DNA replication and transcription.
- It is effective against a wide range of aerobic and anaerobic Gram-negative and Gram-positive bacteria.

**Pharmacokinetics**

- **Absorption:** Ofloxacin is absorbed rapidly and well following oral administration. Absorption is not significantly affected by food.
- **Distribution:** It distributes into various body fluids and tissues, including the CNS, bile, and prostate.
- **Metabolism:** Ofloxacin is metabolized by the liver and excreted primarily in the urine.
- **Elimination:** The elimination half-life is approximately 4 to 5 hours.

**Adverse Effects**

- **Common:** Nausea, vomiting, diarrhea, headache, dizziness, skin rash, pruritus, and in rare cases, anaphylaxis.
- **Rare:** Tendonitis, arthralgia, rhabdomyolysis, muscle tear, convulsion, depression, insomnia, hallucination, self-endangering behavior, thromboembolic events, and pancreatitis.

**Contraindications**

- Ofloxacin is contraindicated in patients with known hypersensitivity to this drug or its components.
- It should not be used in patients with a history of tendonitis, arthralgia, or rhabdomyolysis.

**Precautions**

- Patients with pre-existing tendonitis or arthralgia should be followed closely for signs of worsening.

**DOSAGES AND ADMINISTRATION**

- **Adults and Children:** Oral dosage is 200 mg twice daily for 3 to 7 days or as directed by the physician.
- **Children:** Oral dosage is 5 mg/kg twice daily for 3 to 7 days or as directed by the physician.

**Interactions**

- Ofloxacin has been shown to inhibit the metabolism of warfarin, and patients taking warfarin should be monitored closely.

**Reproduction**

- Ofloxacin has not been studied specifically for its effect on fertility, but it is a member of the fluoroquinolone class, which is teratogenic in other species.

**Storage**

- Store below 30°C (86°F).

**Package Information**

- **Package Code:** 8030884-9093
- **Establishment Code:** 19, 20, 21 Sector 6A, I.I.E. SIDCUL, Manesar, Haryana 123122, India
- **Manufacturer:** TORRENT PHARMACEUTICALS LTD.

**References**