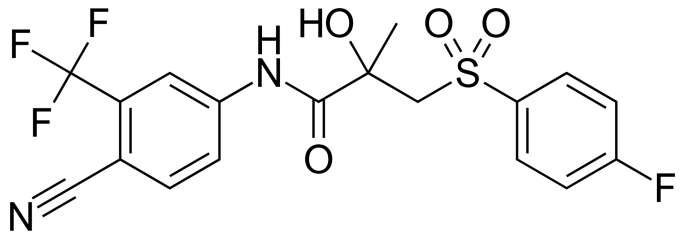
Brand Name: Casodex
Generic: bicalutamide
Type: small molecule
Year Accepted/Phase: 1995

Mechanism:

Casodex is classified as an antiandrogen. It works by competitively inhibiting the action of androgens (male hormones), particularly testosterone, at the androgen receptor in prostate cells.

Chemical Structure:



Indication:

Casodex is indicated for the treatment of advanced prostate cancer, either alone (monotherapy) or in combination with other treatments like surgical castration or luteinizing hormone-releasing hormone (LHRH) analog therapy.

Clinical trials:

Casodex 150 Study Group (Phase III)
Pubmed: https://pubmed.ncbi.nlm.nih.gov/12234503/
Purpose: Evaluate the efficacy and safety of bicalutamide 150 mg as monotherapy compared to castration (surgical or medical) in patients with non-metastatic prostate cancer.
Dates: Conducted from 1995 to 1999.
Results: The trial showed that bicalutamide 150 mg provided similar overall survival rates compared to castration. However, it had a better side effect profile, with fewer instances of hot flashes and impotence.
Impact: This study supported the use of bicalutamide as a monotherapy option for patients with non-metastatic prostate cancer.

EPC (Early Prostate Cancer) Program (Phase III)
Pubmed: https://pubmed.ncbi.nlm.nih.gov/15931272/
Purpose: Assess the efficacy of bicalutamide 150 mg in addition to standard care (radiotherapy or watchful waiting) in patients with localized or locally advanced prostate cancer.
Dates: Conducted from 1995 to 2001.
Results: The trials demonstrated that adding bicalutamide to standard care improved progression-free survival and reduced the risk of disease progression compared to standard care alone.
Impact: These findings led to the approval of bicalutamide as an adjuvant treatment in localized or locally advanced prostate cancer.

Casodex Combination Trial (Phase III)
Pubmed: https://pubmed.ncbi.nlm.nih.gov/9428389/
Purpose: Evaluate the combination of bicalutamide 50 mg with an LHRH analog (such as leuprolide) versus castration in patients with advanced prostate cancer.
Dates: Conducted from 1992 to 1996.
Results: The combination of bicalutamide with an LHRH analog showed comparable efficacy to castration in terms of overall survival and progression-free survival. The combination also offered a better side effect profile.
Impact: This trial established the combination therapy of bicalutamide with an LHRH analog as an effective treatment option for advanced prostate cancer.