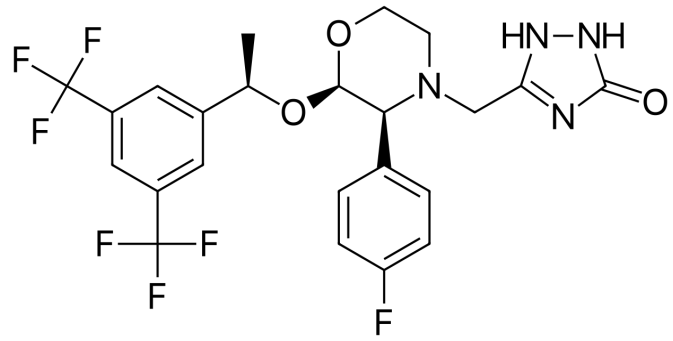
Brand Name: Emend
Generic: aprepitant
Type: small molecule
Year Accepted/Phase: 2003

Mechanism:

Aprepitant is a substance P/neurokinin 1 (NK1) receptor antagonist. It works by blocking the action of substance P, a neuropeptide that binds to NK1 receptors in the brain and is involved in inducing nausea and vomiting.

Chemical Structure:



Indication:

Emend is indicated for the prevention of:

Acute and delayed nausea and vomiting associated with highly emetogenic cancer chemotherapy, including high-dose cisplatin.

Nausea and vomiting associated with moderately emetogenic cancer chemotherapy.

Postoperative nausea and vomiting.

Clinical trials:

Clinical Trial for Prevention of Chemotherapy-Induced Nausea and Vomiting (CINV) – Protocol 052 (Phase III)

Pubmed: https://pubmed.ncbi.nlm.nih.gov/14559886/

Purpose: Evaluate the efficacy of aprepitant in combination with standard antiemetic therapy (ondansetron and dexamethasone) in preventing CINV.
Dates: Conducted from 1999 to 2000.
Results: The trial demonstrated that the addition of aprepitant significantly improved the prevention of both acute and delayed nausea and vomiting compared to standard therapy alone. Complete response rates (no vomiting and no use of rescue therapy) were higher in the aprepitant group.
Impact: These results were pivotal in establishing the role of aprepitant as an essential component of antiemetic regimens for patients undergoing highly emetogenic chemotherapy.

Clinical Trial for Prevention of Postoperative Nausea and Vomiting (PONV) – Protocol 091 (Phase III)

Pubmed: https://pubmed.ncbi.nlm.nih.gov/17540667/

Purpose: Assess the efficacy of aprepitant in preventing postoperative nausea and vomiting.
Dates: Conducted from 2001 to 2002.
Results: Aprepitant was shown to significantly reduce the incidence of postoperative nausea and vomiting compared to placebo. Patients receiving aprepitant had a lower need for rescue medication and reported higher satisfaction with nausea and vomiting control.
Impact: This trial supported the use of aprepitant in the management of PONV, providing an additional option for patients at risk of this complication.