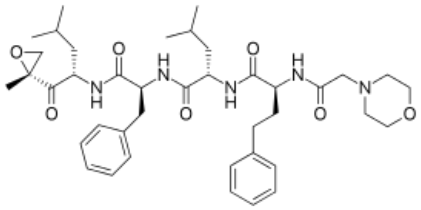
Carfilzomib

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Brand name: Kyprolis®
IUPAC: (2S)-4-methyl-N-[(2S)-1-[[(2S)-4-methyl-1-[(2R)-2-methyloxiran-2-yl]-1-oxopentan-2-yl]amino]-1-oxo-3-phenylpropan-2-yl]-2-[[(2S)-2-[(2-morpholin-4-ylacetyl)amino]-4-phenylbutanoyl]amino]pentanamide
FDA approval: Yes
Manufacturer Link
Usage:

Kyprolis is injected into a vein through an IV. A healthcare provider will give you this injection. Kyprolis is given in a 28-day treatment cycle. You will receive an injection only on certain days of this cycle. Your doctor will determine how many treatment cycles you should receive. You may be given medication to prevent certain side effects while you are receiving Kyprolis. Drink plenty of liquids before and after your Kyprolis injections. Call your doctor if you have ongoing vomiting or diarrhea, or if you are sweating more than usual. You can easily become dehydrated while receiving this medication. You may need frequent medical tests to be sure Kyprolis is not causing harmful effects. Your cancer treatments may be delayed based on the results of these tests. Initial (Cycle 1): 20 mg/m2 intravenously, over 2 to 10 minutes, on the first two days of each treatment week for 3 weeks (Days 1, 2, 8, 9, 15, and 16), followed by a 12 day rest period (Days 17 to 28). Maintenance: 27 mg/m2 intravenously, beginning in Cycle 2, if Cycle 1 dose was tolerated, and continuing for subsequent cycles, as tolerated. The dosing schedule remains the same for Cycle 2 and subsequent cycles.

Mechanism:

The U.S. Food and Drug Administration today approved Kyprolis (carfilzomib) to treat patients with multiple myeloma who have received at least two prior therapies, including treatment with Velcade (bortezomib) and an immunomodulatory therapy. A form of blood cancer that arises from plasma cells, multiple myeloma usually grows in bone marrow, the soft, spongy tissue found inside most bones. The bone marrow is where normal blood cells are produced. In 2012, an estimated 21,700 people will be diagnosed with multiple myeloma and 10,710 will die from the disease, according to the American Cancer Society.

Side effects:

Side effects of Kyprolis include: fever, bruising, pale skin or other signs of low blood cell counts; nausea; diarrhea; or feeling tired.