

# Ubiquitin-Proteasome

## Proteasome Inhibitors

### MG-132

Reversible inhibitor of the 20S proteasome ( $K_i=4\text{ nM}$ ).<sup>1</sup> Most commonly used proteasome inhibitor. Stimulates autophagy.

**Product No:** 10-1309      **5 mg**    **25 mg**

### Bortezomib (Velcade)

Potent, selective and reversible proteasome inhibitor ( $K_i=0.6\text{ nM}$ ).<sup>2</sup> Inhibits proliferation of a number of tumor cell lines ( $IC_{50}=7\text{ nM}$ ).

**Product No:** 10-2120      **5 mg**    **25 mg**

### Lactacystin

A Streptomyces metabolite that is thought to bind irreversibly to the active site N-terminal threonine residue of the catalytic  $\beta$ -subunit of the 20S proteasome, thereby inhibiting its chymotrypsin- and trypsin-like activities.<sup>3</sup>

**Product No:** 10-1314      **200  $\mu\text{g}$**     **1 mg**

### Epoxomicin

Epoxomicin is a potent, selective and irreversible inhibitor of the 20S proteasome.<sup>4</sup> It does not inhibit papain, chymotrypsin, trypsin, calpain or cathepsin B at  $50\text{ }\mu\text{M}$ .<sup>4</sup>

**Product No:** 10-1384      **100  $\mu\text{g}$**

### Carfilzomib (Kyprolis)

An analog of epoxomicin, Carfilzomib is a selective proteasome inhibitor currently approved as a therapeutic for multiple myeloma.<sup>5</sup>

**Product No:** 10-1477      **5 mg**    **25 mg**

## Deubiquitinase (DUB) Inhibitors

### P5091

Selective inhibitor of USP7 ( $IC_{50}=4.2\text{ }\mu\text{M}$ ).<sup>6</sup> Induces apoptosis in multiple myeloma cells.

**Product No:** 10-1422      **5 mg**    **25 mg**

### PR-619

A nonselective, reversible inhibitor of DUBs ( $5\text{-}20\text{ }\mu\text{M}$ )<sup>7</sup> that is highly useful for preserving ubiquitinated proteins during cell lysis.

**Product No:** 10-1485      **5 mg**    **25 mg**

### OTUDin3

Potent inhibitor of the deubiquitinase OTUD3, a key enzyme in tumorigenesis, neurodegeneration, metabolism, and immunity.<sup>8</sup>

**Product No:** 10-4981      **5 mg**    **25 mg**

### iBAP-II

Selective Inhibitor of the H2AK119 deubiquitinase BAP1.<sup>9</sup>

**Product No:** 10-4038      **5 mg**    **25 mg**

### WP-1130

A novel DUB inhibitor of USP9x, USP5, USP14 and UCH37.<sup>10</sup> WP1130 induces degradation of ERG, an important driver of prostate oncogenesis overexpressed in 40% of prostate tumors.<sup>11</sup>

**Product No:** 10-1351      **5 mg**    **25 mg**

## DUB and Proteasome Inhibitors

### *Use PR-619 to preserve ubiquitinated proteins in cell lysates*

DUBs become unregulated in cell lysates and will act quickly to deubiquitinate your protein of interest during cell lysis. To preserve maximum amounts of ubiquitinated protein, include PR-619 ( $50\text{-}100\text{ }\mu\text{M}$ ) in your lysis buffer.<sup>7</sup>

## REFERENCES

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