NEDD8-activating Enzyme
NAE

NEDD8-activating Enzyme (NAE) is an essential component of the NEDD8 conjugation pathway that controls the activity of the cullin-RING subtype of ubiquitin ligases, thereby regulating the turnover of a subset of proteins upstream of the proteasome. Substrates of cullin-RING ligases have important roles in cellular processes associated with cancer cell growth and survival pathways.

NEDD8 (neural precursor cell expressed developmentally downregulated protein 8) is the ubiquitin-like protein most homologous to ubiquitin. The covalent binding of NEDD8 to substrate proteins is called “neddylation”, and includes the following steps: mature NEDD8 is activated by NEDD8-activating enzyme E1 (NAE), transferred by NEDD8-conjugating enzyme E2, and conjugated to the substrate protein by a NEDD8-E3 ligase.

NAE is a critical regulator of the neddylation pathway. Inhibition of NAE can inhibit the activity of the cullin-RING ligases (CRLs) and result in accumulation of CRL substrate proteins.
NEDD8-activating Enzyme Inhibitors

**NACM-OPT**
Cat. No.: HY-111505
NACM-OPT is an orally bioavailable cullin neddylation 1 (DCN1) inhibitor, which potently inhibits the DCN1-UBE2M interaction.

- **Purity:** 98.60%
- **Clinical Data:** No Development Reported
- **Size:** 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

**Pevonodistat (MLN4924)**
Cat. No.: HY-70062
Pevonodistat (MLN4924) is a potent and selective NEDD8-activating enzyme (NAE) inhibitor with an IC₅₀ of 4.7 nM.

- **Purity:** 98.84%
- **Clinical Data:** Phase 3
- **Size:** 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 50 mg, 100 mg, 200 mg

**TAS4464**
Cat. No.: HY-128586
TAS4464 is a highly potent and selective inhibitor of NEDD8 activating enzyme (NAE), with an IC₅₀ of 0.955 nM.

- **Purity:** >98%
- **Clinical Data:** No Development Reported
- **Size:** 100 mg, 250 mg, 500 mg

**ZM223**
Cat. No.: HY-101790
ZM223 is a potent non-covalent NEDD8 activating enzyme (NAE) inhibitor, orally active.

- **Purity:** >98%
- **Clinical Data:** No Development Reported
- **Size:** 5 mg, 10 mg, 50 mg, 100 mg

**TAS4464 hydrochloride**
Cat. No.: HY-10484
TAS4464 hydrochloride (MLN4924 hydrochloride) is a potent and selective NEDD8-activating enzyme (NAE) inhibitor, with an IC₅₀ of 4.7 nM.

- **Purity:** 98.75%
- **Clinical Data:** Phase 3
- **Size:** 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 50 mg, 100 mg, 200 mg

**ZM223 hydrochloride**
Cat. No.: HY-101790A
ZM223 hydrochloride is an orally active, potent non-covalent NEDD8 activating enzyme (NAE) inhibitor with excellent anticancer activity.

- **Purity:** >98%
- **Clinical Data:**
- **Size:** 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg