**Helenalin**

**Cat. No.:** HY-119970  
**CAS No.:** 6754-13-8  
**Molecular Formula:** C₁₅H₁₈O₄  
**Molecular Weight:** 262.3  
**Target:** NF-κB  
**Pathway:** NF-κB

**Storage:**  
- **Powder**  
  - -20°C: 3 years  
  - 4°C: 2 years  
- **In solvent**  
  - -80°C: 6 months  
  - -20°C: 1 month

**BIOLOGICAL ACTIVITY**

**Description**  
Helenalin is an anti-inflammatory sesquiterpene lactone. Helenalin selectively inhibits transcription factor NF-κB by directly targeting p65. Helenalin has alkylating activity, targets the cysteine sulfhydryl groups in the p65 subunit of NF-κB, thereby inhibits its DNA binding[^1][^2].

**In Vitro**  
Helenalin (10 μM; 20-120 minutes) causes complete inhibition of NF-κB DNA binding after 80 minutes[^1]. The anti-inflammatory, anti-carcinogenic phytochemical, Helenalin is a potent inhibitor of periodic Skp2 accumulation, an F-box protein mediating SCF E3 ligase ubiquitylation and degradation of both CKIs during S phase progression[^3].

**Western Blot Analysis[^1]**

- **Cell Line:** Jurkat T cells  
- **Concentration:** 10 μM  
- **Incubation Time:** 20-120 minutes  
- **Result:** Caused complete inhibition of NF-κB DNA binding after 80 minutes.

**In Vivo**  
Helenalin (25 mg/kg; i.p.; 6 to 12 hours) administers to immature male ICR mice caused a rapid decrease in hepatic glutathione levels[^2].

**Animal Model:** Immature male ICR mice[^2]  
**Dosage:** 25 mg/kg  
**Administration:** i.p.; 6 to 12 hours  
**Result:** Caused a rapid decrease in hepatic glutathione levels.
REFERENCES

