4′-Bromoflavone

Cat. No.: HY-115772

CAS No.: 20525-20-6

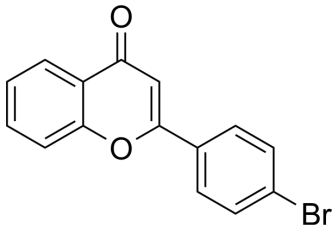
Molecular Formula: $C_{15}H_9BrO_2$

Molecular Weight: 301.13

Target: Others

Pathway: Others

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	4′-Bromoflavone, a cancer chemopreventive agent, is a potent phase II detoxification enzymes inducer[1].
In Vitro	4′-Bromoflavone significantly induces quinone reductase (QR) activity in cultured murine hepatoma 1c1c7 cells (concentration to double activity: 10 nM) and effectively induces the α- and mu-isoforms of glutathione S-transferase in cultured H4IIE rat hepatoma cells with no observed toxicity[1]. 4′-Bromoflavone is a potent inhibitor of cytochrome P4501A1-mediated ethoxyresorufin-O-deethylase activity, with an IC_{50} of 0.86 μM. In HepG2 or MCF-7 cells, 4′-Bromoflavone significantly reduces the covalent binding of metabolically activated benzo[a]pyrene to cellular DNA[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	In short-term dietary studies, 4′-Bromoflavone is also shown to increase QR activity and glutathione levels in rat liver, mammary gland, colon, stomach, and lung in a dose-dependent manner. In studies conducted with female Sprague Dawley rats ,4′-Bromoflavone significantly increases QR activity (phase II enzyme)[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. L L Song, et al. Cancer chemopreventive activity mediated by 4'-bromoflavone, a potent inducer of phase II detoxification enzymes. Cancer Res. 1999 Feb 1;59(3):578-85.

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