# Argipressin diacetate

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| **Cat. No.:** | HY-P0049A |
| **CAS No.:** | 75499-44-4 |
| **Molecular Formula:** | $C_{50}H_{73}N_{15}O_{16}S_2$ |
| **Molecular Weight:** | 1204.34 |
| **Sequence Shortening:** | CYFQNCPRG-NH2 (Disulfide bridge: Cys1-Cys6) |
| **Target:** | Apoptosis; Vasopressin Receptor |
| **Pathway:** | Apoptosis; GPCR/G Protein |
| **Storage:** | Please store the product under the recommended conditions in the Certificate of Analysis. |

## BIOLOGICAL ACTIVITY

**Description**

Argipressin (diacetate) (AVP (diacetate), also known as antidiuretic hormone (ADH)) is a 9 amino acid neuropeptide secreted by the posterior pituitary. Argipressin (diacetate) (AVP (diacetate)) can regulate the biological effects of fluid balance, osmolality and cardiovascular through three separate G-protein coupled receptors (GPCRs), namely Avpr1a (V1a), Avpr1b (V1b) and Avpr2 (V2). Argipressin (diacetate) (AVP (diacetate)) also have potentially important effects on centrally regulated metabolic processes[1].

**In Vitro**

Argipressin (diacetate) (AVP (diacetate)) induces proliferation and prevented cytokine-induced apoptosis in rodent and human beta-cells[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Proliferation Assay[1]

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| Cell Line: | clonal BRIN BD11 and 1.1B4 cells |
| Concentration: | $10^{-6}$ M |
| Incubation Time: | 2 h |
| Result: | Increased proliferation of rodent and human beta-cells. |

Apoptosis Analysis[1]

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|---|---|
| Cell Line: | clonal BRIN BD11 and 1.1B4 cells |
| Concentration: | $10^{-6}$ M |
| Incubation Time: | 2 h |
| Result: | Protected against cytokine-induced beta-cell apoptosis. |

**In Vivo**

Argipressin (diacetate) (AVP (diacetate)) (25 nmol/kg bw; intraperitoneal injection; once) significantly reduces overall AUC glucose values but not increases insulin levels in mice[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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|---|---|
| Animal Model: | NIH Swiss mice (adult; male; 12-14weeks) [1] |
| Dosage: | 25 nmol/kg bw |
| Administration: | AVP (25 nmol/kg bw; intraperitoneal injection; once) |
| Result: | Reduced (P<0.001) overall AUC glucose values but not increased insulin levels in mice. |

## CUSTOMER VALIDATION

- Chemosphere. 2021 Apr;269:128776.
- Biochem Pharmacol. 2022 Sep 29;115265.
- J Cell Mol Med. 2022 Oct 14.
- Front Pharmacol. 2019 Nov 15;10:1380.
- Front Neurosci. 2022 Mar 25;16:838942.

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## REFERENCES

[1]. Shruti Mohan, et al. Vasopressin receptors in islets enhance glucose tolerance, pancreatic beta-cell secretory function, proliferation and survival. Biochimie



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