## Drug Status Report

Drug: Dalargin

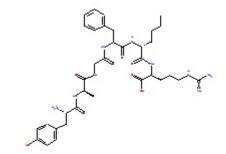
Drug Name Status: Dalargin is the common name.

Chemical Name: 1-6-β-Neoendorphin, 2-D-alanine

Other Names: Dalargine; 2-D-Alanin-1-6-beta-enoendorphin; Try-D-Ala-Gly-Phe-Leu-Arg;

DALG

## **Chemical structure:**



Molecular Formula: C<sub>35</sub>H<sub>51</sub>N<sub>9</sub>O<sub>8</sub>

CAS RN: 81733-79-1

## Pharmacological class / Application: peptide

US: Dalargin is not currently listed on the schedules to the US Controlled Substances Act and is not mentioned on the DEA website.

United Nations: The substance is not listed on the Yellow List - List of Narcotic Drugs under International Control, the Green List - List of Psychotropic Substances under International Control, nor the Red List - List of Precursors and Chemicals Frequently used in the Illicit Manufacture of Narcotic Drugs and Psychotropic Substances Under International Control.

Canadian Status: Dalargin is an opioid-like hexapeptide that has been reported display antiinflammatory activity and offer gastroprotective effects<sup>1</sup>. Although the substance is a  $\mu$ -opioid agonist and exhibits analgesic activity, the hydrophilic nature of the substance limits its activity when administered systemically and therefore requires coupling to a vector for delivery to the central nervous system<sup>2</sup>. The substance is not structurally similar to any of the substances listed in

<sup>&</sup>lt;sup>1</sup>Zhivotova, EY. *et al.* (2009) Gastroprotective effect of dalargin in gastropathy due to treatment with nonsteroid antiinflammatory drugs, Bull. Expt. Biol. Med. **147**:441-443.

<sup>&</sup>lt;sup>2</sup>Rousselle, C. *et al.* (2003) Improved brain uptake and pharmacological activity of dalargin using a peptide-vector-mediated strategy, J. Pharmacol. Exp. Ther. **306**:371-376.

the Schedules to the CDSA.

Recommendation: Dalargin is not included in the schedules CDSA and is not a controlled substance.

July 15<sup>th</sup> 2010.