Dynorphin B (trifluoroacetate salt)

**Item No. 18178**

**Formal Name:** dynorphin B (swine), trifluoroacetate salt  
**Synonyms:** Dynorphin B-13, Rimorphin  
**MF:** C_{74}H_{115}N_{21}O_{17} • XCF_3COOH  
**FW:** 1,570.8  
**Purity:** ≥95%  
**UV/Vis.:**  λ_{max} 278 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 yrs

*Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.*

**Laboratory Procedures**

Dynorphin B (trifluoroacetate salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the dynorphin B (trifluoroacetate salt) in the solvent of choice. Dynorphin B (trifluoroacetate salt) is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of dynorphin B (trifluoroacetate salt) in these solvents is approximately 30 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of dynorphin B (trifluoroacetate salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of dynorphin B (trifluoroacetate salt) in PBs, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

**Description**

Dynorphin B is a 13-residue opioid peptide released from the cleavage of prodynorphin and found widely distributed in the central nervous system. It acts as a \( \kappa_{1b} \)-opioid receptor agonist (\( K_i = 1.1 \) nM) and has been implicated in antinociceptive functions. Dynorphin B has also been used to prime cardiogenesis in pluripotent embryonic stem cells.

**References**