**cis-Vaccenic Acid**

*Item No. 20023*

**CAS Registry No.:** 506-17-2  
**Formal Name:** 11Z-octadecenoic acid  
**Synonyms:** 18:1 cis-11, cis-11-Octadecenoic Acid  
**MF:** C_{18}H_{34}O_2  
**FW:** 282.47  
**Purity:** ≥98%  
**Supplied as:** A solution in ethanol  
**Storage:** -20°C  
**Stability:** ≥1 year

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

**Laboratory Procedures**

*cis-Vaccenic Acid* is supplied as a solution in ethanol. To change the solvent, simply evaporate the *cis*-vaccenic acid under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide (DMF) purged with an inert gas can be used. The solubility of *cis*-vaccenic acid in DMSO and DMF is approximately 30 mg/ml.

*cis-Vaccenic Acid* is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, *cis*-vaccenic acid should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. *cis*-vaccenic acid has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

**Description**

*cis-Vaccenic Acid* is a natural 18:1 ω-7 fatty acid. It is readily incorporated into triglycerides in perfused liver.¹ *cis-Vaccenic Acid* up-regulates immunoglobulin synthesis and induces differentiation of K562, JK1, and transgenic mice primary bone marrow hematopoietic progenitor stem cells.² Also, the levels of *cis*-vaccenic acid increase markedly in the bacterium *Mesorhizobium* when cultivated at cool temperatures (5-15°C).³

**References**