**PRODUCT INFORMATION**

**CCVJ**  
Item No. 17870

**CAS Registry No.:** 142978-18-5  
**Formal Name:** 2-cyano-3-(2,3,6,7-tetrahydro-1H,5H-benzo[i][quinolinizin-9-yi]-2-propenoic acid  
**Synonym:** 9-(2-Carboxy-2-cyanovinyl)julolidine  
**MF:** C_{16}H_{16}N_{2}O_{2}  
**FW:** 268.3  
**Purity:** ≥95%  
**UV/Vis.:** λ_{max} = 279, 441 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years

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

**Laboratory Procedures**

CCVJ is supplied as a crystalline solid. A stock solution may be made by dissolving the CCVJ in the solvent of choice, which should be purged with an inert gas. CCVJ is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of CCVJ in these solvents is approximately 10 and 15 mg/ml, respectively.

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

**Description**

Fluorescent molecular rotors are molecules whose fluorescence is inversely proportional to its intramolecular rotation. The intramolecular rotation of these probes, and hence their fluorescence, depends on the immediate microenvironment of the probe. As a result, fluorescent molecular rotors are used to evaluate changes in solution and membrane viscosity, polymerization or aggregation processes, and protein (un)folding. CCVJ is a fluorescent molecular rotor characterized by low background fluorescence, low fluorescence anisotropy, and good water solubility. Moreover, CCVJ has large hydrophobic structures, allowing it to associate in a non-covalent manner with hydrophobic pockets in proteins in solution. CCVJ is broadly used to monitor changes in solution and molecular characteristics.

**References**