**Bergenin**

*Item No. 26406*

**CAS Registry No.:** 477-90-7

**Formal Name:** (2R,3S,4S,4aR,10bS)-3,4,4a,10b-tetrahydro-3,4,8,10-tetrahydroxy-2-(hydroxymethyl)-9-methoxy-pyrano[3,2-c][2]benzopyran-6(2H)-one

**Synonyms:** (-)-Bergenin, Cuscutin, NSC 661749

**MF:** C_{14}H_{16}O_{9}

**FW:** 328.3

**Purity:** ≥98%

**UV/Vis.:** \( \lambda_{\text{max}}: 275 \text{ nm} \)

**Supplied as:** A crystalline solid

**Storage:** -20°C

**Stability:** ≥2 years

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

**Laboratory Procedures**

Bergenin is supplied as a crystalline solid. A stock solution may be made by dissolving the bergenin in the solvent of choice. Bergenin is soluble in the organic solvent DMSO, which should be purged with an inert gas, at a concentration of approximately 100 mg/ml.

**Description**

Bergenin is a glycoside and a major constituent of *Peltophorum* plants and has diverse biological activities.\(^1\) It scavenges 2,2-diphenyl-1-picrylhydrazyl (DPPH; Item No. 14805) and ABTS radicals and inhibits nitrite production *in vitro* when used at concentrations ranging from 0.1 to 3 mM.\(^1\) Bergenin induces production of TNF-α, nitric oxide (NO), and IL-12 in *M. tuberculosis*-infected macrophages.\(^2\) *In vivo*, bergenin reduces pulmonary lesion formation and bacterial load in mice infected with *M. tuberculosis* H37Rv. Bergenin (10 mg/kg, i.p) restores activity of mitochondrial complex I, II, and IV and reduces renal lipid peroxidation, IL-1β production, and shrinkage of glomeruli in a rat model of ethylene glycol-induced renal injury.\(^3\) It also prevents arrhythmias induced by coronary artery ligation and reperfusion and BaCl\(_2\) in mice.\(^4\)

**References**