## fine chemicals

## Caffeic acid

Code No.: BIA-C1727
Pack sizes: $\mathbf{5} \mathbf{~ m g}, \mathbf{2 5 m g}$


Synonyms
3,4-Dihydroxybenzeneacrylic acid; 3,4-Carboxyethenyl)-1,2-dihydroxybenzene; 4-(2'-Carboxyvinyl)-1,2-dihydroxybenzene; DHCA; NSC 57197; NSC 623438

## Specifications

| CAS \# | $: \mathbf{3 3 1 - 3 9 - 5}$ |
| :--- | :--- |
| Molecular Formula | $: \mathrm{C}_{9} \mathrm{H}_{8} \mathrm{O}_{4}$ |
| Molecular Weight | $: \mathbf{1 8 0 . 2}$ |
| Source | $:$ Synthetic |
| Appearance | $:$ White solid |
| Purity | $:>95 \%$ by HPLC |
| Long Term Storage | $: \mathbf{- 2 0} \mathrm{C}$ |
| Solubility | $:$ Soluble in ethanol, methanoI, DMF or DMSO. |

## Application Notes

Caffeic acid is a common plant metabolite, found in barley and rye, biosynthetically formed by hydrolysis of chlorogenic acid. Caffeic acid is a member of the phenylpropanoid class of lignin biosynthetic precursors. The biochemical and pharmacological activity of caffeic acid has $>20,000$ SciFinder entries and the area is well reviewed by Guzman (2014) and Sharma (2011). Caffeic acid a useful standard for analytical and bioassay dereplication as a metabolite commonly encountered in microbial fermentations.

## References

1. Isolation and characterization of Streptomyces sp. NL15-2K capable of degrading lignin-related aromatic compounds. Nishimura M. et al., J. Biosci. Bioeng. 2006, 102, 124.
2. Genes and enzymes involved in caffeic acid biosynthesis in the actinomycete Saccharothrix espanaensis. Berner M. et al., J. Bact. 2006, 188, 2666.
3. Co-production of caffeic acid and p-hydroxybenzoic acid from p-coumaric acid by Streptomyces caeruleus MTCC 6638. Sachan A. et al., Appl. Microbiol. Biotech. 2006, 71, 720.
4. Natural cinnamic acids, synthetic derivatives and hybrids with antimicrobial activity. Guzman J.D., Molecules 2014, 19, 19292.
5. Cinnamic acid derivatives: A new chapter of various pharmacological activities. Sharma P., J. Chem. Pharm. Res. 2011, 3, 403.
