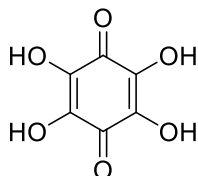


Tetrahydroxyquinone

Code No.: **BIA-T2306**

Pack sizes: **25 mg, 100 mg**



Synonyms : HPEK-1, Kelox, NSC 112931, THQ, Terasin

Specifications

| | |
|-------------------|--|
| CAS # | : 319-89-1 |
| Molecular Formula | : C ₆ H ₄ O ₆ |
| Molecular Weight | : 172.09 |
| Source | : <i>Rubia tinctorum</i> |
| Appearance | : Black solid |
| Purity | : >95% by HPLC |
| Long Term Storage | : -20°C |
| Solubility | : Soluble in methanol or DMSO |

Application Notes

Tetrahydroxyquinone is a black pigment isolated from *Rubia tinctorum* in which all four protons of the benzoquinone structure are substituted by hydroxyl groups. Tetrahydroxyquinone has a role as a radical scavenger and is keratolytic. In vitro, tetrahydroxyquinone induces apoptosis of leukemia cells by reducing protein kinase B-dependent survival signaling followed by apoptosis through the mitochondrial pathway. Tetrahydroxybenzoquinone is a moderately potent inhibitor of aldose reductase, with an IC₅₀ of 23 μM.

References

1. Free radical scavenging reactions of tetrahydroxyquinone: A pulse radiolysis study. Joshi R. Chemistry Select 2016, 1, 1084.
2. The effects of tetrahydroxyquinone on connective tissue. Kelly E.W. J Chronic Dis. 1963, 16, 335.
3. Tetrahydroxyquinone induces apoptosis of leukemia cells through diminished survival signalling. Martins C. et al. Experi Hematol. 2006, 34, 188.
4. Studies on aldose reductase inhibitors from fungi. II. Moniliformin and small ring analogs. Deruiter J. J Enzyme Inhib. 1993, 7, 249.