

# Diiodohydroxyquinoline

The quinoline derivative **diiodohydroxyquinoline** (INN) or **iodoquinol** (USAN), can be used in the treatment of amoebiasis.<sup>[1]</sup>

It is poorly absorbed from the gastrointestinal tract and is used as a luminal amebicide. It acts by chelation of ferrous ions essential for metabolism.<sup>[2]</sup>

It was discovered by Adco Co. and introduced as *diiodohydroxyquinoline*.<sup>[3]</sup>

Susceptibility of *Dientamoeba fragilis* has been measured.<sup>[4]</sup>

Iodoquinol is an amebocide used against *Entamoeba histolytica*, and it is active against both cyst and trophozoites that are localized in the lumen of the intestine. It is considered the drug of choice for treating asymptomatic or moderate forms of amoebiasis. The full mechanism of action is unknown. Iodoquinol is used for diseases caused by moderate intestinal amoebiasis.

Diodoquin enhances zinc absorption in the zinc deficiency disorder Acrodermatitis enteropathica, probably because Diodoquin act as a zinc ionophore.<sup>[5]</sup>

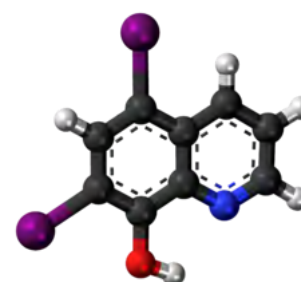
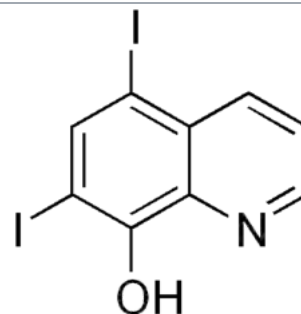
## See also

- Ionophore

## References

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- Nagata, Noriyuki; Marriott, Deborah; Harkness, John; Ellis, John T.; Stark, Damien (2012). "Current treatment options for *Dientamoeba fragilis* infections" (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3862407). *International Journal for Parasitology: Drugs and Drug Resistance.* **2**: 204–215. doi:10.1016/j.ijpddr.2012.08.002 (https://doi.org/10.1016%2Fj.ijpddr.2012.08.002). ISSN 2211-3207 (https://www.worldcat.org/issn/2211-3207). PMC 3862407 (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3862407). PMID 24533282 (https://pubmed.ncbi.nlm.nih.gov/24533282).

## Diiodohydroxyquinoline



### Names

#### IUPAC name

5,7-diiodoquinolin-8-ol

#### Other names

Diquinol, iodoxin, diiodoquin, amebaquin

### Identifiers

#### CAS Number

83-73-8 (http://www.commonchemistry.org/ChemicalDetail.aspx?ref=83-73-8) ✓

#### 3D model (JSmol)

Interactive image (https://chemapps.stola.f.edu/jmol/jmol.php?model=C1%3DCC2%3DC%28C%28%3DC%28C%3DC21%29I%29O%29N%3DC1)

#### ChEMBL

ChEMBL86754 (https://www.ebi.ac.uk/chembl/index.php/co

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5. Aggett, P.J.; Delves, H.T.; Harries, J.T.; Bangham, A.D. (March 1979). "The possible role of Diodoquin as a zinc ionophore in the treatment of acrodermatitis enteropathica". *Biochemical and Biophysical Research Communications.* **87** (2): 513–517. doi:10.1016/0006-291X(79)91825-4 (<https://doi.org/10.1016%2F0006-291X%2879%2991825-4>).

	<a href="#">mpound/inspect/ChE MBL86754</a> <span style="color: red;">✘</span>
<a href="#">ChemSpider</a>	3597 ( <a href="http://www.chemspider.com/Chemical-Structure.3597.html">http://www.chemspider.com/Chemical-Structure.3597.html</a> ) <span style="color: red;">✘</span>
<a href="#">ECHA InfoCard</a>	100.001.362 ( <a href="https://echa.europa.eu/substance-information/-/substanceinfo/100.001.362">https://echa.europa.eu/substance-information/-/substanceinfo/100.001.362</a> ) <span style="color: blue;">✎</span>
<a href="#">KEGG</a>	D00581 ( <a href="https://www.kegg.jp/entry/D00581">https://www.kegg.jp/entry/D00581</a> ) <span style="color: green;">✔</span>
<a href="#">MeSH</a>	Iodoquinol ( <a href="https://www.nlm.nih.gov/cgi/mesh/2014/MB_cgi?mode=&amp;term=Iodoquinol">https://www.nlm.nih.gov/cgi/mesh/2014/MB_cgi?mode=&amp;term=Iodoquinol</a> )
<a href="#">PubChem CID</a>	3728 ( <a href="https://pubchem.ncbi.nlm.nih.gov/compound/3728">https://pubchem.ncbi.nlm.nih.gov/compound/3728</a> )
<a href="#">UNII</a>	63W7IE88K8 ( <a href="http://fdasis.nlm.nih.gov/srs/srsdirect.jsp?regn=63W7IE88K8">http://fdasis.nlm.nih.gov/srs/srsdirect.jsp?regn=63W7IE88K8</a> ) <span style="color: green;">✔</span>
<a href="#">CompTox Dashboard (EPA)</a>	DTXSID6023155 ( <a href="https://comptox.epa.gov/dashboard/DTXSID6023155">https://comptox.epa.gov/dashboard/DTXSID6023155</a> ) <span style="color: blue;">✎</span>
<a href="#">InChI</a>	InChI=1S/C9H5I2NO/c10-6-4-7(11)9(13)8-5(6)2-1-3-12-8/h1-4,13H <span style="color: red;">✘</span> Key: UXZFQZANDVDGMM-UHFFFAOYSA-N <span style="color: red;">✘</span>  InChI=1/C9H5I2NO/c10-6-4-7(11)9(13)8-5(6)2-1-3-12-8/h1-4,13H Key: UXZFQZANDVDGMM-UHFFFAOYAF
<a href="#">SMILES</a>	<chem>C1=CC2=C(C(=C(C=C2)I)O)N=C1</chem>
<b>Properties</b>	
<a href="#">Chemical formula</a>	C <sub>9</sub> H <sub>5</sub> I <sub>2</sub> NO
<a href="#">Molar mass</a>	396.951

I2 = 253.8  
253.8/397.0 = 63.93

<b>Pharmacology</b>	
<u>ATC code</u>	<u>G01AC01 (WHO (https://www.whooc.no/atc_ddd_index/?code=G01AC01))</u>
Except where otherwise noted, data are given for materials in their <u>standard state</u> (at 25 °C [77 °F], 100 kPa).	
<span style="color: red;">✗</span> <u>verify</u> (what is <span style="color: green;">✓</span> <span style="color: red;">✗</span> ?)	
<u>Infobox references</u>	

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