

## 10-Acetyl-3,7-dihydroxyphenoxazine (Amplex® Red)



10-Acetyl-3,7-dihydroxyphenoxazine (Amplex® Red), is regarded as the best fluorogenic substrate for peroxidase and H<sub>2</sub>O<sub>2</sub> because it is highly sensitive, specific and stable.

### Product attributes

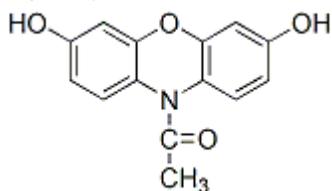
CAS number	119171-73-2
Excitation/Emission	571/585 nm (end product)

### Product Description

10-Acetyl-3,7-dihydroxyphenoxazine (N-Acetyl-3,7-dihydroxyphenoxazine or ADHP), which has been marketed under the name Amplex® Red, is regarded as the best fluorogenic substrate for peroxidase because it is highly specific and stable. The substrate itself is nearly colorless and nonfluorescent until it is oxidized by H<sub>2</sub>O<sub>2</sub> (reacting in a 1:1 stoichiometry) in the presence of horseradish peroxidase (HRP) to become the highly red fluorescent resorufin. H<sub>2</sub>O<sub>2</sub> is produced by many enzymatic reactions, and therefore ADHP can be used to detect the activity of many different enzymes.

- Detect HRP in immunoassays
- Detect trace amounts of hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>)
- Detect using fluorometer or microplate reader
- λ<sub>Ex</sub>/λ<sub>Em</sub> (pH 9)= 571/585 nm (end product)
- ε= 54,000 (end product)
- White to off-white solid soluble in DMSO or DMF
- Store desiccated at -20 °C and protect from light
- C<sub>14</sub>H<sub>11</sub>N<sub>1</sub>O<sub>4</sub>
- MW: 257.24
- [119171-73-2]

High purity resorufin ([10062](#)) is also available from Biotium to be used as a standard.



Amplex Red is a registered trademark of Thermo Fisher Scientific.

### References

1. Biosensors and Bioelectronics (2010) doi:10.1016/j.bios.2010.07.126
2. Cancer Biotherapy and Radiopharmaceuticals 25(4), 439 (2010).
3. Anal Biochem 287, 196 (2000).
4. J Immunol Methods 202, 133 (1997).
5. Anal Biochem 253, 169 (1997).

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