Intercalators Introduction

DNA intercalators in general are polycyclic, aromatic, planar molecules capable of fitting in between nucleic acid base pairs (1). Incorporation of intercalators into oligonucleotides allows the modified oligos to be cross-linked (in the case of psoralen) to complementary nucleic acid strands, or to show an increase in subsequent duplex or triplex stability (in the case of acridine).

<table>
<thead>
<tr>
<th>Modification</th>
<th>Catalog Number</th>
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<tbody>
<tr>
<td>Acridine</td>
<td>26-6694</td>
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<tr>
<td>Psoralen C6</td>
<td>26-6686</td>
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Intercalators Design Protocols

Under Development. Please inquire here
Intercalators Applications

Currently, DNA intercalators are used in both antisense work and structural studies. For example, incorporation of acridine into oligos is attractive for antisense applications, because intercalation of acridine into the DNA-RNA duplex significantly increases the Tm (that is, enhances duplex stability) without affecting target specificity (2). Consequently, it becomes possible to use much shorter oligos as antisense moieties. Incorporating psoralen into oligos is attractive for cross-linking studies into nucleic acid secondary structure and protein-nucleic acid interactions. For more information on the uses of psoralen, see the applications section of the Cross-Linkers modification category.
References

