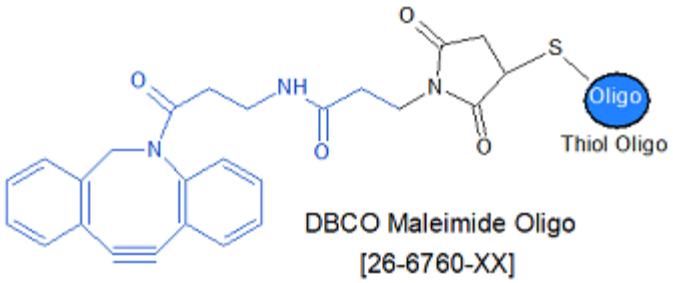
DBCO-Maleimide

Category	Click Chemistry
Modification Code	DBCO-Mal
Reference Catalog Number	26-6760
5 Prime	Y
3 Prime	Y
Internal	Y
Molecular Weight(mw)	427.4



DBCO Maleimide Oligo
[26-6760-XX]

This modification is a post synthesis maleimide conjugation to a reduced thiol amino group thus an additional modification with thiol group is required. A C3 or C6 thiol group can be placed at the 5' or for internal positions Thiol C6 dT modified base is used.

This modification is a post synthesis NHS conjugation to a primary amino group thus an additional modification with an amino group is required. A C6 or C12 amino group can be placed at the 5' or for the 3' end a C3 or C7 amino and for internal positions an amino modified base is used, e.g Amino dT C6. **YIELD** DBCO-Maleimide modifications is a post synthesis conjugation performed using a thiol group. The yield is lower as compared to direct automated coupling of modifications that are available as amidites. Approximate yield for various scales are given below.
~2 nmol final yield for 50 nmol scale synthesis.
~5 nmol final yield for 200 nmol scale synthesis.
~16 nmol final yield for 1 umol scale synthesis
~160 nmol final yield for 10 umol scale synthesis
~240 nmol final yield for 15 umol scale synthesis

Click here for a complete list of Click Chemistry Oligo Modifications
Cyclooctyne-based (dibenzocyclooctynes, DBCO) modifications offers the ease of copper-free click reagents. These are simple to use and has excellenet click performance in 17 hours or less at room temperature. Gene Link offers 5'-DBCO-TEG for preparing oligos with 5'-DBCO and a 15 tom triethylene glycol spacer arm, DBCO-dT for inserting a DBCO group at any position within the oligonucleotide and DBCO-sulfo-NHS Ester is also offered for post-synthesis conjugation reactions. DBCO-modified oligos may be conjugated with azides in organic solvents, such as DMSO, or aqeous buffers. Depending on the azide used, the reaction will go to completion in 4-17 hours at room temperature.