

Product Data Sheet

Cat#: AD-114-U
Cat#: AD-114-B, Biotin labeled
Cat#: AD-114-F, FITC labeled

Product Description: Daunomycin (10.10v)

Aptamer Type: DNA

Sequence: 5'-ACCATCTGTGTAAGGGGTAAGGGGTGGGGGTGGGTACGTCT-3'; 41-mer

Size 100 nM

Mol. Wt: 12873.40 g/mole

Purity: >95%

Affinity: 272 nM (reported value)

Comments: n/a

Notes: Daunomycin is a cancer chemotherapeutic agent. The active dose of the drug is reduced in the blood as it is excreted unmetabolized via urine, therefore, diminishes its cancer-combating effects. Aptamers were isolated from a 40-nt random library with a theoretical diversity of 10^{14} different species that displayed high affinity for the target molecule daunomycin. One aptamer was further characterized and exhibited a dissociation constant (KD) of 20 nM.

References: Wochner et al. "A DNA aptamer with high affinity and specificity for therapeutic anthracyclines." Analytical Biochemistry, 373(2008): 34-42.

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