
Product Data Sheet

Cat#:	AD-125-U
Cat#:	AD-125-B, Biotin labeled
Cat#:	AD-125-F, FITC labeled
Product Description:	Lactobacillum acidophilus (hemag1P)
Aptamer Type:	DNA
Sequence:	5'- AGCAGCACAGAGGTCAGATGTAGCCCTTCAACATAGTAATATCTCTGCATTCTGTGTGCCTATGCGTGCTACCGTGAA-3'; 78-mer
Size	100 nM
Mol. Wt:	24010.64 g/mole
Purity:	>95%
Affinity:	13 nM (reported value)
Comments:	Most likely target is the S-layer protein expressed on the cell surface.
Notes:	To eliminate the need of purifying target molecules on the cell surface, selection technique using live bacterial cells in suspension as targets, to select for ssDNA aptamers specific to cell surface molecules is developed here. Aptamer pools obtained after 6–8 rounds of selection demonstrated high affinity for and selective binding with L. acidophilus cells when tested via flow cytometry, microscopy, and fluorescence measurements. Hemag1P, was found to bind to L. acidophilus much more strongly and specifically than other cells tested with a predicted tight hairpin secondary structure.
References:	Hamula et al. "Selection of Aptamers against Live Bacterial Cells." Analytical Chemistry, 80(2008): 7812-7819.

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