

USER GUIDE



Version 1.0 (August 2008)

Product: ArrayGrade KREAcot DNA

Catalog number: EA-035

Lot number: See label on the vial

Unit Size: 10 mg

Concentration: 1 mg/ml

Storage buffer: 10 mM Tris-HCl (pH 7.4), 0.3 mM EDTA

Storage conditions: ArrayGrade KREAcot DNA is stable at 2-8°C for at least 3 months. For long term storage ArrayGrade KREAcot DNA can be stored at -20°C in a constant temperature freezer.

A. Introduction

ArrayGrade KREAcot DNA is extracted from human placental DNA and subsequently fragmented, denatured, and re-annealed under conditions that enrich for repetitive DNA sequences (1).

B. Application

Array CGH:

ArrayGrade KREAcot DNA can be used to suppress cross-hybridization to human repetitive DNA in array CGH experiments (2). The product can be used in any microarray CGH hybridization protocol and platform of choice. Amounts of ArrayGrade KREAcot DNA needed in a microarray experiment should be determined empirically but will be in the order of 12.5-50 times excess of the amount of labeled genomic DNA (see Figure 1).

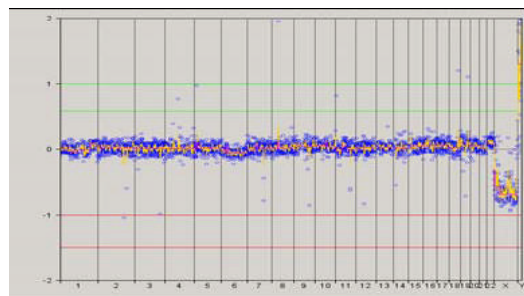
NOTE: Purity, DNA size and concentration are verified by spectrophotometer and agarose gel electrophoresis. Functional validation tests have been performed by microarray CGH experiments using BAC arrays. The human-source material used in the production of this procedure tested negative for hepatitis B virus, hepatitis C virus (HCV), human immunodeficiency virus type-1 (HIV-1) and type-2 (HIV-2), human T-cell lymphotropic virus (HTLV-1 and HTLV-2) and *Treponema pallidum*. Handle as if potentially infectious.

C. References

1. Weiner, A.M., et al. (1986) *Ann. Rev. Biochem.* 55, 631.
2. Lengauer, C., et al. (1990) *Hum. Genet.* 86, 1.

Additional literature

3. Marx K.A. et al. (1976) *Biochem. Biophys. Acta* 425(2) p129-47
4. Reid T, et al. (1990) *Hum. Genet.* 85(6) p581-6
5. Landegent, J.E., et al. (1986) *Hum. Genet.* 77, p366.
6. Raap A.K., et al. (2004) *Biotechniques* 37(1) p130-4
7. Britten, R.J., et al. (1986) *Methods Enzymol.* 29, 363.
8. Lichter P, et al. (1988) *Hum. Genet.* 80, 224.
9. Lichter, P et al. (1990) *Science* 24, 64-9



Log Ratio X chromosome (lowest normalized data)

Excess ArrayGrade KREAcot DNA	16 hours hyb.	72 hours hyb.
6.25x	-0.37	-0.54
12.5x	-0.40	-0.77
25x	-0.54	-0.64
50x	-0.73	-0.69

Figure 1: Overview of the X log ratio values of a microarray CGH hybridization comparing healthy male Cy5-JLS labeled genomic DNA vs. healthy female Cy3-ULS labeled genomic DNA on BAC arrays.

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