Epigenomics Core

DNA QC:

Submit genomic DNA in 10mM Tris, 1mM EDTA (~25ng/ul)
DNA must be RNA free, of molecular weight >-40kb, and absorbance ratios 260/280 ratio >1.7; 260/230=2.0-2.2

Epigenomics Core Control:

**Quantity**
- Determination of concentration of double stranded DNA (dsDNA) using the Qubit Fluorometer. Please note that the fluorescent intercalator is very specific for double stranded DNA and, depending on the quality of the DNA submitted, there might be a big difference with the nanodrop concentration. [Click here](#) for a detailed analysis

**Quality**
- Determination of the approximate size of the DNA by using 0.8% agarose gel
- RNA interferes with both restriction enzyme digestion and library preparation

**GOOD QUALITY DNA**

1. No material trapped in the well
2. Most DNA higher than 10kb, no evidence of DNA degradation
3. No presence of RNA contamination
Epigenomics Core
EXAMPLES OF DIFFERENT QUALITY of DNA RUN ON 0.8-1% AGAROSE GEL

1. ACCEPTABLE QUALITY OF DNA

1. Some material trapped in the well, indicative of protein-DNA complexes
2. Most DNA higher than 48.5kb, some evidence of DNA degradation
3. No presence of RNA contamination

2. UNACCEPATABLE MATERIAL

• Gel has no MW marker
• assuming this is the correct % agarose, samples 1-3 have DNA of an intense band of the correct molecular weight, however, note the increase smear indicative of degraded DNA
• samples 4-6, notice diminished intensity and size of high molecular weight DNA band, and continuous smear
• sample 7 some high molecular DNA, hints of degradation AND LOTS of RNA
• samples 8-9, almost no DNA, LOTS of RNA
• sample 10 and 11 are fully degraded