



# Cutting DNA protocol

**Aims:** to cut DNA into smaller fragments. The cut is nonspecific, being an excellent example of contrast with the specificity of cas9/crispr.

## Materials

- DNA solution (100ng/ul)
- Nuclease free water
- DNase I Reaction Buffer (10X; NEB#M0303S)
- DNase I (2U/ul; NEB#M0303S)

## Mix for Dna digestion:

- 2ul of DNA solution (100ng/ul)
- 1ul of DNase I Reaction Buffer
- 0,5ul of DNA
- 6,5ul Nuclease free water

## Mix for Undigested Control:

- 2ul of DNA solution (100ng/ul)
- 1ul of DNase I Reaction Buffer
- 7ul Nuclease free water

**Incubate** at 37°C for 15 minutes.

**Run the solution in an agarose gel.**

## Results

You should see a clear band in the Mix for Undigested Control (the molecular weight depends on the DNA fragment size) and a smear with a very low molecular weight in the Mix for DNA digestion, that represents the very small fragments of randomly cut DNA. Note: The smear might be very faint and hard to visualize in the gel.

