

Chromosome walking

Chromosome walking is a technique used for characterizing large regions of chromosomes. Generally, a cosmic library is used for this technique. Each clone in this library have a DNA insert of 50 KB. It begins with a DNA fragment that contains a known gene/genetic marker. The sequence located at one end of this fragment is used to identify a clone that has such a DNA insert, which partly overlaps the first fragment. Now the non overlapping end is used as probe. In this way, one continues to move step-by-step toward a gene of interest located close to the known gene/genetic marker. This technique, therefore, is called chromosome walking because each clone takes the researcher one step closer to the gene of interest.