



Molecular Biotechnology Programme
Uppsala University School of Engineering

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Title (English) Optimisation of mRNA <i>in situ</i> technique using non-radioactive probes			
Title (Swedish): Optimering av mRNA <i>in situ</i> teknik med icke radioaktiva prober			
Abstract The sensitivity of <i>in situ</i> hybridisation using non-radioactive labelling was investigated and improved using digoxigenin-labelled RNA probes. <i>In situ</i> hybridisation with digoxigenin labelled RNA probes gives rise to a significant, specific signal and very low background. Subjecting paraffin-embedded tissue sections to microwave heating prior to hybridisation significantly increased the signal intensity. Time requirements for detection of hybridised dig-labelled probe was minimised to 3 days, compared to 2-3 weeks for radioactive labelling. The method proved to be reliable and applicable when studying the expression of <i>Fractalkine</i> , <i>Fractalkine receptor</i> , <i>Target N</i> and <i>N receptor</i> in rat spinal cord and brain.			
Keywords <i>In situ</i> hybridisation, digoxigenin, non- radioactive probes, gene expression			
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