

## **In depth analysis of the Sox4 gene locus that consists of sense and natural antisense transcripts**

### **ABSTRACT**

SRY (Sex Determining Region Y)-Box 4 or Sox4 is an important regulator of the pan-neuronal gene expression during post-mitotic cell differentiation within the mammalian brain. Sox4 gene locus has been previously characterized with multiple sense and overlapping natural antisense transcripts [1] and [2]. Here we provide accompanying data on various analyses performed and described in Ling et al. [2]. The data include a detail description of various features found at Sox4 gene locus, additional experimental data derived from RNA-Fluorescence in situ Hybridization (RNA-FISH), Western blotting, strand-specific reverse-transcription quantitative polymerase chain reaction (RT-qPCR), gain-of-function and in situ hybridization (ISH) experiments. All the additional data provided here support the existence of an endogenous small interfering- or PIWI interacting-like small RNA known as Sox4\_sir3, which origin was found within the overlapping region consisting of a sense and a natural antisense transcript known as Sox4ot1.

**Keyword:** Endogenous siRNA; Brain development; Natural antisense transcripts