

SMC1A interacts with **CTCF** to regulate sister chromatid cohesion and gene expression during the cell cycle.

SMC1A**, a core component of the cohesin complex, is essential for sister chromatid cohesion during the cell cycle, ... **CTCF**, on the other hand, is a versatile transcriptional regulator involved in chromatin organization, gene expression regulation, and the formation of chromatin loops... Given their roles, a functional interaction could occur through the co-localization of the cohesin complex and CTCF on chromatin, ... **Experimental evidence supports a model where CTCF and the cohesin complex work together to establish chromatin loops and control gene expression patterns, highlighting the importance of their interaction in maintaining genomic stability and proper gene regulation.

ELAVL1 and **APBB2** may interact functionally in the context of neuronal differentiation and synaptic stability/modulation.

***ELAVL1**, an RNA-binding protein, plays a critical role in stabilizing mRNAs by binding to AU-rich elements (AREs) in the 3'-UTR of target mRNAs, promoting mRNA stability and post-transcriptional regulation... **APBB2** is involved in synaptic formation and neuronal signaling, ... Given their expression in the brain and involvement in processes critical for neuronal function, it is plausible that **ELAVL1** could stabilize mRNAs encoding for proteins in the pathway(s) that APBB2 influences, ... This functional interaction could be indirect, mediated through the stabilization of mRNAs that encode for proteins directly interacting with or regulating APBB2 activity or its downstream effectors ...*

Interaction

+	SMC3-MSH6
+	SMC1A-CTCF
+	ELAVL1-SOX4
+	CTCF-RRP1B
+	UTP14A-NOLC1
-	HMGCR-ELOVL6
-	DHX29-SEC24C
-	CTCF-CREB1
-	ELAVL1-APBB2
-	CNOT4-CRKL

LLM rank priority