

## **<b>FBXO25-ASSOCIATED NUCLEAR DOMAINS (FANDS): A NOVEL SUBNUCLEAR STRUCTURE</b>**

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SCF<sub>FBXO25</sub> is a Skp1/Cul1/E-box protein (SCF) productive ubiquitin-ligase complex containing the F-box protein FBXO25. To help define its cellular function, we have developed an affinity-purified antibody raised against to a recombinant FBXO25 NH<sub>2</sub>-terminal fragment (aa 2 to 62). In western blot, FBXO25 protein was expressed in all major mouse tissues but was not detected in the striate muscle. In confocal analysis, the endogenous FBXO25 was found accumulated in a novel dot-like nuclear domain that is distinct from clastosomes and other well-characterized structures. Additionally, these compartments also contain at least two other ubiquitin-proteasome system components: 20S proteasome and Skp1. We propose to name these compartments “FANDs,” for FBXO25-associated nuclear domains. Remarkably, the inhibition of transcription with actinomycin D drastically affects FANDs nuclear organization indicating that they are dynamic compartments influenced by the transcriptional activity of the cell. Supported by FAPESP and FAEPA.