

## NUCLEAR PORE COMPLEX: IDENTIFICATION OF ANCHORING DOMAINS FOR FG-NUCLEOPORING.

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The nuclear pore complex (NPC) is large multi-protein complex that is embedded in the nuclear envelope. Acting as a gate, the NPC regulates the import and export of large molecules (>50 kDa) but allows the diffusion of smaller molecules between the nucleus and cytoplasm of cells. The proteins that make up the NPC are known as nucleoporins or “Nups.” FG-Nups, are named after their content of many phenylalanine-glycine peptide repeats, and are “natively unfolded” in structure creating a meshwork of flexible, filamentous-like proteins. These proteins, more importantly their FG domains, have been shown to participate in the translocation of cargo through the NPC and forming a size-selective gate for the NPC, but still which domain of the FG-Nups anchors them to the NPC is still unknown. Here we identify specific domains in FG-Nups that are responsible for their anchoring at the NPC.