

Publication**A complex of two centrosomal proteins, CAP350 and FOP, cooperates with EB1 in microtubule anchoring****JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)****ID** 59304**Author(s)** Yan, Xiumin; Habedanck, Robert; Nigg, Erich A.**Author(s) at UniBasel** [Nigg, Erich](#) ;**Year** 2006**Title** A complex of two centrosomal proteins, CAP350 and FOP, cooperates with EB1 in microtubule anchoring**Journal** Molecular Biology of the Cell**Volume** 17**Number** 2**Pages / Article-Number** 634-644

The anchoring of microtubules (MTs) to subcellular structures is critical for cell shape, polarity, and motility. In mammalian cells, the centrosome is a prominent MT anchoring structure. A number of proteins, including ninein, p150Glued, and EB1, have been implicated in centrosomal MT anchoring, but the process is far from understood. Here we show that CAP350 and FOP (FGFR1 oncogene partner) form a centrosomal complex required for MT anchoring. We show that the C-terminal domain of CAP350 interacts directly with FOP and that both proteins localize to the centrosome throughout the cell cycle. FOP also binds to EB1 and is required for localizing EB1 to the centrosome. Depletion of either CAP350, FOP, or EB1 by siRNA causes loss of MT anchoring and profound disorganization of the MT network. These results have implications for the mechanisms underlying MT anchoring at the centrosome and they attribute a key MT anchoring function to two novel centrosomal proteins, CAP350 and FOP.

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