

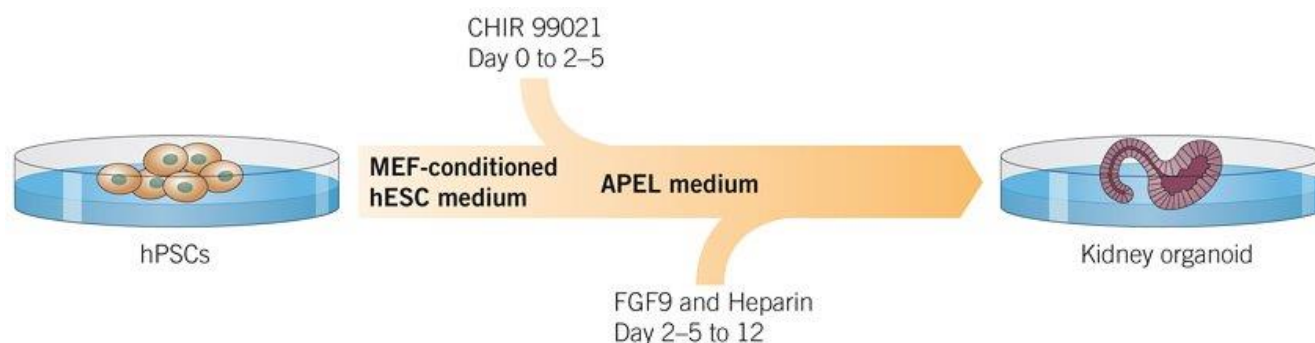
Generation of Kidney Organoids from hPSCs

This is intended as a guide only; for full experimental details please read the reference provided.

In Brief

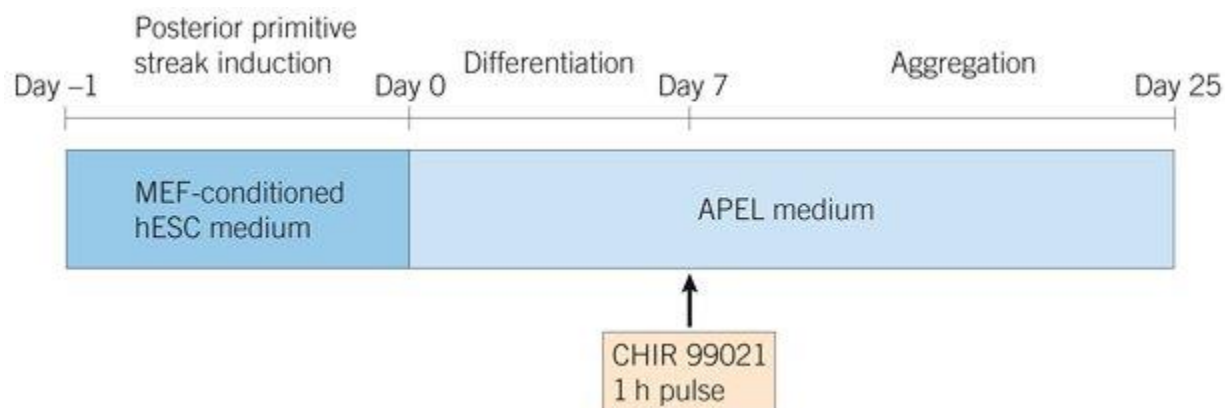
Takasato et al. describe a protocol to generate kidney organoids from human PSCs.

hiPSCs or ESCs were cultured in monolayers in MEF-conditioned ESC medium. The following day (day 0) the medium was exchanged for APEL medium supplemented with CHIR 99021 for intermediate mesoderm induction. CHIR 99021 was exchanged for FGF9 and heparin around days 2 to 5, depending on the PSC line used. On day 7 cells were harvested for 3D culture to facilitate organoid formation. Growth factors were withdrawn around day 12 and organoids were harvested on day 25.



Cocktails

Intermediate Mesoderm Induction		Differentiation	
CHIR 99021 (Cat.No. 4423)	8 μ M	FGF9	200 ng/ml
		Heparin (Cat.No. 2818)	1 μ g/ml



Reference

Takasato *et al.* (2016) Generation of kidney organoids from human pluripotent stem cells. *Nat. Protoc.* **11** 1681. PMID: [27560173](https://pubmed.ncbi.nlm.nih.gov/27560173/)