

**Supplementary table 3 Candidate pathogenic gene identified in patients of this study.**

Gene	RefSeq ID	Chr	Position	dbSNP ID	Function	Amino Acid Alteration
SYCP2L	NM_001040274	6	10894170	rs1196215011	frameshift deletion	c.150_151del: p.Ser52Profs*7
SYCP2L	NM_001040274	6	10912986	rs189836527	missense variant	c.999A>G: p.Ile333Met

  

1000G	GO-E SP	gnomAD	Polyphen-2	Mutation Taster	CADD	MGI
NA	NA	0.00001	-	Disease causing	22.9	Early reproductive senescence;
0.0001	NA	0.00005	Probably damaging	polymorphism	24.7	Decreased oocyte number; Decreased primary ovarian follicle number

Note: CADD score: amino acid substitution is predicted damaging if the score is >20.  
 NA: not available.