**Supplementary figure legends**

Supplementary figure 1. mRNA expression status of *TOPK* in Oncomine database.

(a) Comparison of *TOPK* transcription levels between normal ovarian epithelial tissues and serous adenocarcinoma tissues of ovary, using t-test.

(b) Comparison of *TOPK* transcription levels among normal organs.

Supplementary figure 2. Expression of TOPK in each ovarian cancer subtypes and association with prognosis.

(a) Sub-analysis of TOPK expression in histological subtypes.

(b) Prognostic analysis of transcriptional expression level of *TOPK* in ovarian cancer using microarray data from the Kaplan Meier-plotter.

Supplementary figure 3. MTT assay of OTS514 in 11 ovarian cancer cell lines.

Supplementary figure 4. MTT assay of OTS964 in 11 ovarian cancer cell lines.

Supplementary figure 5. Serum levels of OTS514 in mice after oral administration of OTS514.

Supplementary figure 6. Growth inhibitory effects and cytotoxicity of OTS964 on ovarian cancer cells freshly isolated from patients.

(a) Efficacy of OTS964 for ovarian cancer cells of 31 cases.

(b,c) Comparison of efficacy using 100nM of OTS964 for different tumor sites (ovary, omentum, and ascites) (b) and for different histological types (c). Statistical analysis was performed by t-test.

Supplementary figure 7. Monitoring of cytotoxicity by 7-day treatment with 1nM, 10nM or 100nM of OTS514. Statistical analysis was performed by t-test.