

Panel 6

Folate Receptor γ (FR γ)

Function:

Folate is a membrane-bound protein that is essential for DNA synthesis, replication, cell division, growth, and survival¹².

Presence in EOC:

FR γ has limited expression in normal cells, but is overexpressed in epithelial-based tumors, such as EOC^{12,13}.

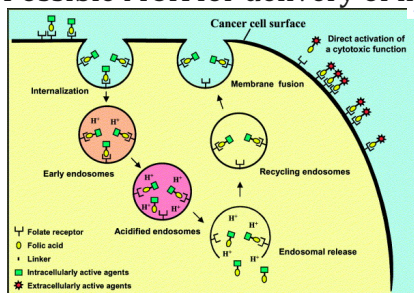
Target rationale:

The lack of diagnostic markers for the early detection of ovarian cancers at early stages continues to present limitations. However, the overexpression of FR γ frequently found in ovarian cancer may provide clinicians with a specific marker as an indicator for early stage ovarian cancer¹³.

The upregulation of FR γ in ovarian cancer coupled with the ligand binding necessary for cellular internalization make FR γ an ideal target for the delivery of cytotoxic agents^{12,14}. [note to designer, place this text to the right of the graphic]

[note to designer, reconstruct image similar to below. Delete orange and pink circles and move open circle underneath internalization circle. Keep arrows so it goes from internalization to endosomal release to recycling endosomes, to membrane fusion]

Possible MOA for delivery of internal or external cytotoxic agents [title for graphic]



Initial studies:

Clinical studies are ongoing using multiple FR γ -based targets for therapeutic approaches¹⁴.