MMP14 targeting natural antibodies to treat ovarian cancer

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Overview

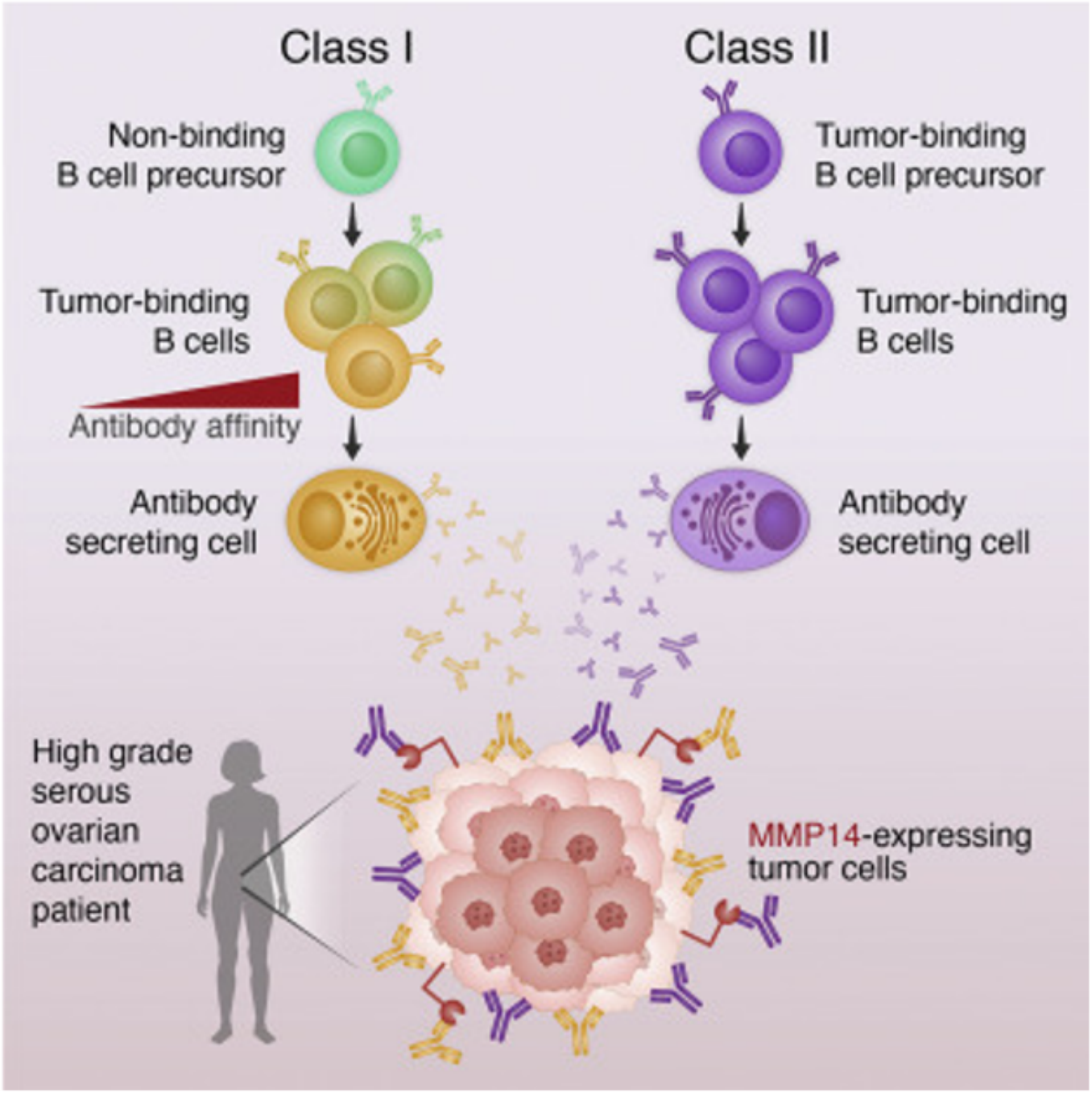
MMP14 is a major antibody target on the tumor cell surface as it is highly expressed on tumor cells and plays a key role in cancer progression and metastasis. Natural occurring autoantibodies targeting MMP14 were isolated from ovarian cancer patients. These antibodies induce cell-mediated tumor killing and have potential applications both as a therapy and a diagnostic tool.

Applications

- Â Monoclonal antibody therapy
- Antibody-drug conjugates (ADCs)
- Theranostics
- Chimeric antigen receptor (CAR) therapy
- Prognostic marker for ovarian cancer

Differentiation

- Derived from human patients, reducing immunogenicity risks
- Targets MMP14, a key protein in tumor metastasis
- Multiple therapeutic formats, increasing treatment flexibility
- Demonstrated in vivo efficacy



Stage of Development

The antibodies have been tested in preclinical studies, including in vivo ovarian cancer models, demonstrating strong tumor binding and effector functions.

Preclinical studies show strong tumor-binding and immune activation, supporting their use in cancer therapy.

References

Mazor RD et al., Cell 2022. doi:10.1016/j.cell.2022.02.012 [1]

Patent Status

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