Introduction

Most human and experimental tumors educate the immune system to promote rather than suppress tumor development. Therapeutic feasibility of re-activating the tumor-associated immune is demonstrated by immune checkpoint inhibitors, which are neutralizing antibodies directed against immune checkpoint ligands and receptors. However, only a subset of cancer patients benefit from immune checkpoint blockade. Therefore, other strategies to re-activate the tumor-associated immune system alone or in combination with current standard therapy or immunotherapy are required.

Invention

The discovery of an interleukin that is produced in tumors and suppresses the anti-tumor activity of a number of immune cells opens up a new approach to the therapy of cancer. The invention comprises a neutralizing against said interleukin, which is suitable for therapeutic administration. Because of its activity in an experimental tumor model that is resistant to current immune checkpoint therapy (anti-PD-1), the target may be suitable for patients/entities that do not respond to immune checkpoint blockade and for use in combinatorial approaches.

Market Potential

Commercial applications: monotherapy or combination therapy of solid tumors

Development Status

The concept has been demonstrated in gene knockout studies in a mouse model of mammary carcinoma and is currently under investigation in further animal experiments.